

**BID FOR
SANITARY SEWER CIPP LINING - FISCAL 2024**

BID # 23/24-011

PWP # WA-2024-164

BIDS DUE NOT LATER THAN: 1:45 PM ON MAY 1, 2024

PUBLIC BID OPENING: 2:00 PM ON MAY 1, 2024

[NOTE: TIME BIDS ARE DUE IS DIFFERENT FROM BID OPENING TIME]



431 PRATER WAY
P.O. BOX 857
SPARKS, NV 89432-0857



Company Name: _____

**CITY OF SPARKS
NOTICE TO BIDDERS
SANITARY SEWER CIPP LINING - FISCAL 2024
BID # 23/24-011 / PWP # WA-2024-164**

NOTICE IS HEREBY GIVEN that the City of Sparks, Nevada, will receive written sealed bids only, for the project listed above. Said bids must be in the hands of the Contracts and Risk Manager at 431 Prater Way, Sparks, Nevada, NO LATER THAN **1:45 PM ON MAY 1, 2024**. Bids postmarked prior to, but not received until after this deadline will not be accepted. Vendor bid response submittals may not be sent to the City of Sparks via the Internet/e-mail and will not be entertained for award by the City of Sparks. The right is reserved to reject any Bid/Proposal or to accept the Bid/Proposal which is deemed by the City of Sparks to be in the best interest of the City of Sparks. The City of Sparks reserves the right to waive any irregularities and/or informalities in the bid process.

All Bids are to be marked clearly on the outside. Due to hybrid schedules and staff reductions, in-person staff availability is limited. Bidders wishing to physically deliver their bids on the bid due date shall note that the Purchasing Office will receive bids in the lobby of City Hall beginning at **1PM on MAY 1, 2024**. Bids are due no later than 1:45PM. Bids may also be delivered to the Purchasing Department physical dropbox/mailbox, also located in the lobby of City Hall.

Bids will be opened and publicly read at **2:00 PM ON MAY 1, 2024** via Zoom video/audio conferencing. Meeting # 828 5479 5089. Meeting Passcode: 050686 with a direct link of: <https://cityofsparks-us.zoom.us/j/82854795089?pwd=RFvWI8Nnrpw2cPGyCEVctNzI8GyX4W.1&from=addon>.

PROJECT DESCRIPTION: Repair of sanitary sewer mains by means of cast-in-place pipe (CIPP) lining including lateral reinstatement and bypass pumping in multiple locations throughout the City of Sparks.

PRE-BID MEETING: There will be a **NON-MANDATORY** pre-bid meeting held at **10:00 AM ON APRIL 24, 2024** via Zoom. Meeting ID: 827 7926 9216. Passcode: 786077 with a direct link of: <https://cityofsparks-us.zoom.us/j/82779269216?pwd=2KhnlD25jpTZYK95IKqlRX64q1vzgH.1&from=addon>.

BONDING/LICENSING: A Bid Bond in the amount of 5% of bid amount is required. This bid bond will function as a penalty in the event the successful bidder fails to enter into a written contract with the City in accordance with the bid documents. Additionally, the City will be entitled to actual damages, if any. Prospective bidders will be required to have a current Contractor's License under the Nevada State Law for the type of work specified herein.

The work to be performed under this Contract shall be commenced by the successful Bidder after all executed Contract documents have been submitted, and after being notified to proceed by the City of Sparks.

Bid documents and specifications may be obtained from the City of Sparks website. Please visit <http://portal.cityofsparks.us/bids> to obtain complete bid documents. There is no cost to use the system or obtain plans, but registration at the site is required. It is the responsibility of all potential bidders/responders to monitor the Purchasing Division's website for any changing information prior to submitting their bid/proposal. The City of Sparks will not be responsible for the timeliness or completeness of information provided by any 3rd party bid listing or re-selling service. For further information, contact the Project Manager at aelson@cityofsparks.us or at (775) 353-2375. The individual responsible for coordinating this bid is: Ashley Elson, PE – Sr. Civil Engineer.

Reno Gazette Journal Legal Notices Section
Publish Date: 4/17/2024
Proof of publication required

Bidder's Checklist

Bidders are instructed to complete and return the following forms in order for their bids to be complete. Failure to return the following items may result in your bid being declared “non-responsive.”

1. _____ Bid Item Schedule
2. _____ Bidder Information Sheets
3. _____ Subcontractor Information Form (5% list due with bid submittal)
4. _____ Acknowledgement and Execution Form
5. _____ Certification Regarding Debarment
6. _____ “Certificate of Eligibility” (Local Preference) - If bid exceeds \$250,000 and Contractor wishes to potentially apply their preference.
7. _____ Bid Bond
8. _____ Signed Bid Addenda (if applicable)
9. _____ Completed Federal Forms/Disclosures

**CITY OF SPARKS
 SAMITARY SEWER CIPP LINING - FISCAL 2024
 BID #23/24-011
 PWP #WA-2024-164**

PRICES must be valid for 90 calendar days after the bid opening.

COMPLETION of this project is expected **PURSUANT TO CONTRACT DOCUMENTS.**

BIDDER acknowledges receipt of _____ Addenda.

 Bidder Name

 (signature)

BID ITEM SCHEDULE:

BASE BID SCHEDULE					
Item No.	Quantity	Unit	Description	Unit Price	Total Price
1	1	LS	Mobilization/Demobilization	\$ _____/LS	\$ _____
2	1	LS	Temporary Traffic Control, Complete in Place.	\$ _____/LS	\$ _____
3	1	LS	Temporary Erosion Control, Complete in Place	\$ _____/LS	\$ _____
4	106	LF	Sewer Main 10" CIPP, Complete in Place.	\$ _____/LF	\$ _____
5	3,476	LF	Sewer Main 8" CIPP, Complete in Place.	\$ _____/LF	\$ _____
6	67	EA	Lateral Reinstatement, Complete in Place.	\$ _____/EA	\$ _____
7	3	EA	Spot Repair with 10" Short Liner, Complete in Place.	\$ _____/EA	\$ _____
8	90	EA	Spot Repair with 8" Short Liner, Complete in Place.	\$ _____/EA	\$ _____
9	29	EA	Service Lateral Connection Liner – 8"x4" Top Hat, Complete in Place.	\$ _____/EA	\$ _____
10	2	EA	Service Lateral Connection Liner – 10"x4" 360°-Main Lateral Seal, Complete in Place.	\$ _____/EA	\$ _____
11	74	EA	Service Lateral Connection Liner – 8"x4" 360°-Main Lateral Seal, Complete in Place.	\$ _____/EA	\$ _____
12*	3	EA	Internal Point Repair - Grind Protruding Lateral or Obstruction, Complete in Place. (Contingent Item)	\$ _____/EA	\$ _____
13*	3	EA	Chemical Grout Installation, Complete in Place. (Contingent Item)	\$ _____/EA	\$ _____
14	1	LS	Bypass Pumping, Complete in Place.	\$ _____/LS	\$ _____

15	1	FA	Force Account	\$ 60,000.00	\$ 60,000.00
TOTAL BASE BID					\$ _____

(Written amount TOTAL BASE BID):

\$ _____

Bid Schedule Notes:

1. City of Sparks reserves the right and privilege to accept or reject any or all bids or parts thereof, based solely on the judgment of representatives of the City of Sparks.
2. See Bid Item Clarifications.
3. Total base bid shall include Force Account Item #15 in the total base bid amount.

Bidder Information

COMPANY INFORMATION:

Company Name:
Contact Name:
Address:
City:
State / Zip Code:
Telephone Number including area code:
Fax Number including area code:
E-mail:

COMPANY BACKGROUND

- 1) Has your company ever failed to complete any contracts awarded to it? No___ Yes___ (If yes, please provide details.)

- 2) Has your company filed any arbitration request or law suits on contracts awarded within the last five years? No___ Yes___ (If yes, please provide details.)

- 3) Does your company now have any legal suits or arbitration claims pending or outstanding against it or any officers relating to the performance of a public contract? No___ Yes___ (If yes, please provide details.)

- 4) Does your company now employ any officers or principals who were with another firm when that company failed to complete a contract within the last five years? No___ Yes___ (If yes, please provide details.)

- 5) Has your company had a contract partially or completely terminated for default (cause) within the past five years? No___ Yes___ (If yes, please provide details.)

- 6) Has your company been found non-responsible on a government bid within the last five years? No___ Yes___ (If yes, please provide details.)

Bidder Information

CONTRACTOR LICENSE INFORMATION:

Nevada State Contractor's License Number (If Applicable):
License Classification(s):
Limitation(s) of License:
Date Issued:
Date of Expiration:
Name of Licensee:
City, State, Zip Code of Licensee:
Telephone Number of Licensee:

BUSINESS LICENSING INFORMATION All vendors doing business within the City of Sparks are required to obtain and maintain a current business license from the City of Sparks prior to commencement of work (Sparks Municipal Code Section 5.08.020A). Vendor(s) awarded a contract resulting from this bid shall be required to obtain a current business license if they do not already hold one.

City of Sparks Business License Number:
Date Issued:
Date of Expiration:
Name of Licensee:
City, State, Zip Code of Licensee:
Telephone Number of Licensee:
Taxpayer Identification Number:

Bidder Information

DISCLOSURE OF PRINCIPALS:

a) **Individual and/or Partnership:**

Owner 1) Name:
Address:
City, State, Zip Code:
Telephone Number:
Owner 2) Name:
Address:
City, State, Zip Code:
Telephone Number:
Other 1) Title:
Name
Other 2) Title:
Name:

b) **Corporation:**

State in which Company is Incorporated:
Date Incorporated:
Name of Corporation:
Address
City, State, Zip Code:
Telephone Number:
President's Name:
Vice-President's Name:
Other 1) Name:
Title:

Awarded Contract Information

If your company is determined to be the awardee of the contract for this scope of work, the contract form for the work will be routed via electronic means. Therefore, please identify the authorized individual that will be signing the resulting contract. Presumably this will be the company owner or corporate officer authorized to bind the company for future work.

COMPANY INFORMATION:

Company Name:
Authorized Name:
Title:
Individual E-Mail Address:
Telephone Number including area code:
Mailing Address:

SUBCONTRACTOR DETAIL
SUBCONTRACTORS EXCEEDING FIVE PERCENT OF BID AMOUNT

INSTRUCTIONS: Per NRS 338.141, Bidder submits the following names of First-Tier Subcontractors who will provide to Bidder labor or a portion of the Work or improvements for which Subcontractor will be paid an amount exceeding five percent (5%) of the Bid Price. The Bidder shall list the name of a Subcontractor for each portion of the Work, the value of which exceeds five percent (5%) of the Bid Price. **If Bidder will perform more than 5% of the Work, BIDDER SHALL ALSO LIST HIS NAME and description of the work that the prime contractor will perform in the space provided below.**

Name of Subcontractor	Address	
Phone	Nevada Contractor License #	Limit of License
Description of Work:		
Name of Subcontractor	Address	
Phone	Nevada Contractor License #	Limit of License
Description of Work:		
Name of Subcontractor	Address	
Phone	Nevada Contractor License #	Limit of License
Description of Work:		
Name of Subcontractor	Address	
Phone	Nevada Contractor License #	Limit of License
Description of Work:		
Name of Subcontractor	Address	
Phone	Nevada Contractor License #	Limit of License
Description of Work:		
Name of Subcontractor	Address	
Phone	Nevada Contractor License #	Limit of License
Description of Work:		

Bidder Name: _____

Authorized Signature: _____

SUBCONTRACTOR DETAIL
SUBCONTRACTORS EXCEEDING ONE PERCENT OF BID AMOUNT OR \$50,000

INSTRUCTIONS: In compliance with NRS 338.141, Bidder submits the following names of First-Tier Subcontractors who will provide to Bidder labor or a portion of the Work or improvements for which Subcontractor will be paid an amount exceeding one percent (1%) of the Bid or \$50,000, whichever is greater.

Since all Subcontractors listed on the Bidder's 5% Subcontractor Information Form are over 1% of the Bid amount, those Subcontractors shall automatically be deemed incorporated into this 1% Subcontractor Information form and need not be re-listed below.

Information provided must be submitted within two (2) hours after the completion of the opening of the bids (Per NRS 338.141). Bidder shall enter "NONE" under "Name of Subcontractor" if not utilizing subcontractors exceeding this amount. This form must be complete in all respects. If, additional space is needed, attach a separate page. The bidder may elect to submit this information with the bid proposal and, in that case, the bidder will be considered as having submitted this information within the above two hours.

Name of Subcontractor	Address	
Phone	Nevada Contractor License #	Limit of License
Description of Work:		
Name of Subcontractor	Address	
Phone	Nevada Contractor License #	Limit of License
Description of Work:		
Name of Subcontractor	Address	
Phone	Nevada Contractor License #	Limit of License
Description of Work:		
Name of Subcontractor	Address	
Phone	Nevada Contractor License #	Limit of License
Description of Work:		

Bidder Name: _____ **Authorized Signature:** _____

CITY OF SPARKS ACKNOWLEDGMENT AND EXECUTION:

STATE OF _____)
) SS
County of _____)

_____(Name of Principal) being first duly sworn, deposes and says: That he/she is the Bidder, or authorized agent of the Bidder for whom the aforesaid described work is to be performed by; that he/she has read the Plans, Specifications, and related documents including but not limited to, any addenda issued and understands the terms, conditions, and requirements thereof; that if his/her bid is accepted that he/she agrees to furnish and deliver all materials except those specified to be furnished by the City of Sparks (Owner) and to do and perform all work for the **SANITARY SEWER CIPP LINING - FISCAL 2024**, Bid # **23/24-011**, together with incidental items necessary to complete the work to be constructed and/or services to be provided in accordance with the Specifications, Plans, and Contract Documents annexed hereto.

TO THE CONTRACTS AND RISK MANAGER OF THE CITY OF SPARKS:

The undersigned, as Bidder, declares that the only persons or parties interested in this proposal, as principals, are those named herein, the Bidder is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid: that this proposal is made without collusion with any other person, firm or corporation; that he/she has carefully examined the location of the proposed work; the proposed form of Contract, the Contract Provisions, Plans, Specifications and Contract Documents incorporated therein referred to and made part thereof; that he/she proposes and agrees if this proposal is accepted, that he/she will contract with the City of Sparks in the form of the Contract prescribed, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the Contract and annexed Contract Provisions, Plans and Specifications, in the manner and time prescribed and according to the requirements of the Project Representative as therein set forth, it being understood and agreed that the quantities shown herein are approximate only and are subject to increase or decrease, and that he/she will accept, in full, payment therefore the indicated prices.

(Printed Name of Contractor/Bidder) Contractor/Bidder: _____
BY: _____
Firm: _____
Address: _____
City: _____
State / Zip Code: _____
Telephone Number: _____
Fax Number: _____
E-mail Address: _____
(Signature of Principal) Signature: _____
DATED this _____ day of _____, 2023.

State of Nevada)
) SS.
County of _____)

On this _____ day of _____, in the year 2023, before me,

_____/Notary Public, personally appeared _____ Personally known to me (or proved
to me on the basis of satisfactory evidence) to be the person whose name is subscribed to this instrument, and acknowledged that he (she) executed it. WITNESS my hand and official seal.

Notary's Signature: _____ My commission Expires: _____

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS**

(This form to be signed and returned at the time of bid)

This certification is required by the Federal Regulations Implementing Executive Order 12549, Debarment and Suspension, 45 CFR Part 93, Government-wide Debarment and Suspension, for the Department of Agriculture (7 CFR Part 3017), Department of Labor (29 CFR Part 98), Department of Education (34 CFR Parts 85, 668, 682), Department of Health and Human Services (45 CFR Part 76).

The prospective bidder, _____ certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. Any exceptions provided will not necessarily result in denial of award, but will be considered in determining bidder responsibility and whether or not the City will enter into contract with the party. For any exception noted, indicate on an attached sheet to whom it applies, initiating agency, and dates of action. Providing false information may result in criminal prosecution or administrative sanctions.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

I am unable to certify to the above statement. My explanation is attached.

Signature _____ Date _____

Local Preference Affidavit

NEW Instructions: This form is required to receive a preference in bidding on projects exceeding \$250,000. This form must be submitted no later than two (2) hours following the opening of bids, only if the bidder wishes for their preferential status(established by their current Certificate of Eligibility) to be considered in the evaluation of bids. A copy of the bidder’s Certificate of Eligibility must be submitted at the time the contractor submits their bid.

I, _____, on behalf of the Contractor, _____, swear and affirm that in order to be in compliance with NRS 338.0117 and be eligible to receive a preference in bidding **SANITARY SEWER CIPP LINING - FISCAL 2024 (Bid #23/24-011)** certify that the following requirement will be adhered to, documented and attained on completion of the contract. Upon submission of this affidavit on behalf of _____, I recognize and accept that failure to comply with any requirements is a material breach of the contract and entitles the City to damages. In addition, the Contractor may lose their preference designation and/or lose their ability to bid on public works for a period of time, pursuant to NRS 338:

1. The Contractor shall ensure at least 50 percent of workers employed on the public work possess a Nevada driver’s license or identification card;
2. The Contractor shall ensure all vehicles used primarily for the public work will be registered and (where applicable) partially apportioned to Nevada;
3. The Contractor shall ensure payroll records related to this project are maintained and available within the State of Nevada.

These requirements are not applicable to Contractors who do not use the “Bidder’s Preference” eligibility certificate in their bid or do not receive an advantage in ranking of bids due to their preference status.

By: _____ Title: _____

Signature: _____ Date: _____

Signed and sworn to (or affirmed) before me on this _____ day of _____, 20____, by _____ (name of person making statement).

State of _____)
)ss.
County of _____)

_____ STAMP AND SEAL
Notary Signature

CITY OF SPARKS, NEVADA – 5% Bid Bond

KNOW ALL MEN BY THESE PRESENTS: That we the undersigned _____, as “Principal,” and _____, as “Surety,” are hereby held and firmly bound unto the City of Sparks, Nevada, as “Obligee,” in the penal sum of _____dollars (\$_____) for the payment of which, well and truly to be made, the Principal and Surety bind themselves, their heirs, executors, and administrators, successors and assigns, jointly and severally, by this instrument. The condition of the obligation of this bid bond is as follows:

WHEREAS, NRS 332.105 authorizes local governments to require bid bonds to insure execution and proper performance of the Contract and the Bonding Company has an “A” or better rating with Moody’s or A.M. Best and T-Listed with the U.S. Treasury Department;

AND, WHEREAS, the Principal has submitted a bid for Bid # **23/24-011**, PWP # **WA-2024-164**, for the **SANITARY SEWER CIPP LINING - FISCAL 2024**.

NOW, THEREFORE,

- (a) If said Bid shall be rejected; or
- (b) If said Bid shall be accepted and the Principal shall execute and deliver the contract in the bid documents (“Contract”) to Obligee in accordance with the terms of the bid documents, and give such bond or bonds as may be specified in the bid or contract documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or
- (c) If the Principal shall pay to the Obligee the full amount of the bid bond as a penalty irrespective of the Obligee’s actual damages in the event of the failure of the Principal to enter into such Contract and give such bond or bonds,

then, this obligation shall be null and void. Otherwise it shall remain in full force and effect, it being expressly understood and agreed that the liability of the Surety (but not of the Principal) for any and all claims hereunder shall, in no event, exceed the penal amount of the obligation as herein stated.

The Surety, for the consideration for which this bond was executed, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Obligee may accept such bid, and hereby waives notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and the Surety has caused their seal to be hereto affixed and these present to be signed by their proper officers.

Signed, Sealed and dated: _____

Principal
By: _____

Surety
By: _____

GENERAL CONDITIONS

General Conditions



GENERAL CONDITIONS

Please Read Carefully

These Provisions Are a Part of Your Bid and any Contract Awarded

Scope of Bid/Proposal: Bids/Proposals are hereby requested for **SANITARY SEWER CIPP LINING - FISCAL 2024**, as per specifications herein.

The bidder agrees that:

- A. Bidder has carefully examined the specifications, and all provisions relating to the item(s) to be furnished or the work to be done; understands the meaning, intent, and requirements; and
- B. Bidder will enter into a written contract and furnish the item(s) or complete the work in the time specified, and in strict conformity with the City of Sparks specifications for the prices quoted.

Note: Bidder is defined as any individual, partnership, or corporation submitting a bid, proposal, or quotation in response to a request for bid (RFB), request for proposal (RFP), request for information (RFI) or request for quotation (RFQ). A bidder may also be referred to as a bidder, contractor, supplier or vendor.

The use of the title "Bidder," "Vendor", "Contractor" or "Consultant" within this solicitation document and any resulting contract shall be deemed interchangeable and shall refer to the person or entity with whom the City of Sparks is soliciting and/or contracting for the service or product referenced within the bid document.

1. Prices:

All prices and notations must be in ink or typewritten. Mistakes may be crossed out and corrections typed or written with ink adjacent to the error. Bids shall indicate the unit price extended to indicate the total price for each item bid. Any difference between the unit price correctly extended and the total price shown for all items bid shall be resolved in favor of the unit prices. Bidders are encouraged to review all prices prior to bid submittal, as withdrawal or correction may not be permitted after the bid has been opened.

2. Firm Prices:

Prices on bid shall be firm prices not subject to escalation unless otherwise provided for in the specifications. In the event the specifications provide for escalation, the maximum limit shall be shown, or the bid shall not be considered. In the event of a decline in market price below a price bid, the City of Sparks shall receive the benefit of such decline.

3. Items Offered:

If the item offered by the bidder has a trade name, brand and/or catalog number, such shall be stated in the bid. If the bidder proposes to furnish an item of a manufacturer or vendor other than that mentioned on the face hereof, bidder must specify maker, brand, quality, catalog number, or other trade designation. Unless such is noted on the bid form, it will be deemed that the item offered is that designated even though the bid may state "or equal".

4. Brand Names:

Whenever reference to a specific brand name is made by the City, it is intended to describe a component that has been determined to best meet operational, performance, or reliability standards of the City, thereby incorporating these standards by reference within the specifications. These specifications are not meant to limit the vendor; they are guidelines to minimum qualifications. The bidder shall indicate their compliance or non-compliance for each line of the specification. Any deviations from the specifications or where submitted literature does not fully support the meaning of the specifications must be clearly cited in writing by the bidder.

General Conditions



An equivalent (“or equal”) may be offered by the bidder, subject to evaluation and acceptance by the City. It is the bidder’s responsibility to provide, at bidder’s expense, samples, test data, or other documentation the City may require to fully evaluate and determine acceptability of an offered substitute. The City reserves the sole right to reject a substituted component that will not meet or exceed City standards.

5. Samples:

Samples may be required for bid evaluation and testing purposes. Bidders shall agree to provide samples upon request and at no additional cost to the City.

6. Withdrawal of Bids:

Bids may be withdrawn by written or facsimile notice received prior to the exact hour and date specified for receipt of bid. A bid may also be withdrawn in person by a bidder, or bidder’s authorized representative, prior to the exact hour and date set for receipt of bids. Telephone withdrawals are not permitted.

7. Late Bids, Modifications, or Withdrawals:

Bids, modifications of bids, or bid withdrawals received after the exact time and date specified for receipt will not be considered.

8. Mistake in Bid:

- (a) If the bidder discovers a mistake in bid prior to the hour and date specified for receipt of bid, bidder may correct the mistake by withdrawing the bid in accordance with Item 7 above and resubmit prior to the stated bid deadline.
- (b) If within seventy-two hours of the bid closing and prior to the issuance of a purchase order or a contract, the apparent low bidder discovers a mistake in bid of a serious and significant nature, bidder may request consideration be given to withdrawing the bid. The mistake must be evident and provable. The right is reserved by the City to reject any and all requests for withdrawal of bids. The decision of the Purchasing Manager is final as regards acceptance or rejection of requests for withdrawal after closing of bids.
- (c) A mistake in bid cannot be considered once a purchase order or contract is issued.

9. Signature:

All bids shall be signed and the title and firm name indicated. A bid by a corporation shall be signed by an authorized officer, employee or agent with his or her title.

10. Exceptions:

A bidder deviating from specifications must specify any and all deviation(s). Failure to note said exceptions shall be interpreted to convey that the bidder shall propose to perform in the manner described and/or specified in this bid solicitation. If exception(s) are taken or alternatives offered, complete descriptions must be shown separately.

11. Confidential Information:

Any information deemed confidential or proprietary should be clearly identified by the bidder as such. It may then be protected and treated with confidentiality only to the extent permitted by state law. Otherwise the information shall be considered a public record. Information or data submitted with a bid will not be returned.

12. Quality:

Unless otherwise required in the specifications, all goods furnished shall be new and unused.



13. Litigation Warranty:

The bidder, by bidding, warrants that bidder is not currently involved in litigation or arbitration concerning the materials or bidder's performance concerning the same or similar material or service to be supplied pursuant to this contract of specification, and that no judgments or awards have been made against bidder on the basis of bidder's performance in supplying or installing the same or similar material or service, unless such fact is disclosed to the City in the bid. Disclosure may not disqualify the bidder. The City reserves the right to evaluate bids on the basis of the facts surrounding such litigation or arbitration and to require bidder to furnish the City with a surety bond executed by a surety company authorized to do business in the State of Nevada and approved by The City of Sparks in a sum equal to one hundred percent (100%) of the contract price conditional on the faithful performance by bidder of the contract in the event the bid is awarded to bidder, notwithstanding the litigation or arbitration.

14. Royalties, Licenses and Patents:

Unless otherwise specified, the bidder shall pay all royalties, license and patent fees. The bidder warrants that the materials to be supplied do not infringe any patent, trademark or copyright and further agrees to defend any and all suits, actions and claims for infringement that are brought against the City, and to defend, indemnify and hold harmless the City from all loss or damages, whether general, exemplary or punitive, as a result of any actual or claimed infringement asserted against the City, the bidder or those furnishing material to bidder pursuant to this contract.

15. Performance Standards:

Performance of work and acceptability of equipment or materials supplied pursuant to any contract or award shall be to the satisfaction and full discretion of the City.

16. Americans with Disabilities Act (ADA) Standards:

Bidders shall be required to comply with current ADA Standards in preparing their bids and executing work required under any contract resulting from this bid. Completed work must comply with current ADA Standards.

17. Warranties:

(a) Unless otherwise specified, all workmanship, material, labor or equipment provided under the contract shall be warranted by bidder and/or manufacturer for a minimum of twelve (12) months after acceptance by City. Greater warranty protection will be accepted. Lesser warranty protection must be indicated by bidder on the bid proposal as an exception.

(b) Bidder shall be considered primarily responsible to the City for all warranty service, parts and labor applicable to the goods or equipment provided by bidder under this bid or award, irrespective of whether bidder is an agent, broker, fabricator or manufacturer's dealer. Bidder shall be responsible for ensuring that warranty work is performed at a local agency or facility convenient to City and that services, parts and labor are available and provided to meet City's schedules and deadlines. If required and defined within the Scope of Work, the Bidder will post a performance bond after contract award to guarantee performance of these obligations. Bidder may establish a service contract with a local agency satisfactory to City to meet this obligation if bidder does not ordinarily provide warranty service.

18. Addenda:

The effect of all addenda to the bid documents shall be considered in the bid, and said addenda shall be made part of the bid documents and shall be returned with them. Before submitting a bid, each bidder shall ascertain

General Conditions



whether or not any addenda have been issued, and failure to acknowledge any such addenda may render the bid invalid and result in its rejection.

All potential bidders are responsible for monitoring the City website regarding the availability of new bid documents or addenda (where applicable). The City of Sparks will not be responsible for the results of any potential failures in automatic notification systems to potential bidders or plan holders with respect to these documents and will not adjust bid schedules or requirements due to any potential failures of those systems. It is the responsibility of all potential bidders/responders to monitor the Purchasing Division's website for any changing information prior to submitting their bid/proposal. The City of Sparks will not be responsible for the timeliness or completeness of information provided by any 3rd party bid listing or re-selling service.

19. Specifications to Prevail:

The detailed requirements of the Specifications, Scope of Work or Special Conditions shall supersede any conflicting reference in these General Conditions or the stated language on the City of Sparks Standard Purchase Order that are in conflict therewith.

20. Taxes:

The City is exempt from State, City and County Sales Taxes per NRS 372.325. The City will furnish Exemption Certificates for Federal Excise Tax when applicable. The successful bidder shall pay all taxes, levies, duties and assessments of every nature, which may be applicable to any work or materials under this Contract. The Contract Sum and any agreed variations thereof shall include all taxes imposed by law. The successful bidder shall make any and all payroll deductions required by law. The successful bidder herein indemnifies and holds the City harmless from any liability on account of any and all such taxes, levies, duties, assessments and deductions.

21. Prevailing Wages:

Bidder is responsible for complying with all applicable local, State and Federal wage laws, whether or not specifically cited in this bid document.

Per NRS Sections 338.020 through 338.090, certain projects defined as "public works" require the payment of the prevailing wage as determined by the Labor Commissioner. Generally speaking, projects/contracts for construction of a public work valued at less than \$100,000 are exempt from the prevailing wage requirement (NRS 338.080). Bidder shall be fully aware of the prevailing wage requirements of the State of Nevada as detailed in NRS Chapter 338 and price their bid response accordingly. Further information concerning Prevailing Wage rates can be found at:

https://labor.nv.gov/PrevailingWage/Public_Works_Prevailing_Wages/

Federal "Davis Bacon" wages may be applicable if the funding for the project includes Federal funds. These requirements are detailed in the "Special Conditions – Federal Requirements" section that will be included in this bid document when such conditions apply. Contractor shall compare the applicable wage rate for each classification used on the project and pay the higher of the two rates (Nevada State Prevailing Wage or Davis Bacon Wage) in each case.



22. Apprenticeship Utilization Act:

Bidder acknowledges that the Nevada Legislature has enacted state laws requiring contractors engaged in vertical or horizontal construction who employ workers on one or more public works during a calendar year to use varying levels of apprentices on such public works. *See* NRS 338.01165; SB 82 (2023). Bidder acknowledges that Senate Bill 82 (2023) places compliance and reporting requirements on contractors and subcontractors engaged in public works project, and requires contractors and subcontractors engaged in public works projects to meet annual apprentice use thresholds set by state law, including obligations to provide the Nevada Labor Commissioner with supporting documentation when requested, and an obligation to provide an annual report to the Nevada Labor Commissioner documenting its compliance with Nevada apprenticeship requirements. Bidder acknowledges and certifies that it will comply with NRS 338.01165 and SB 82 (2023), as each may be amended in the future.

23. Conflict of Interest:

No City employee or elected or appointed member of City government, or member of the employee's immediate family, may participate directly or indirectly in the procurement process pertaining to this bid if they:

- (a) Have a financial interest or other personal interest that is incompatible with the proper discharge of their official duties in the public interest or would tend to impair their independence, judgment or action in the performance of their official duties.
- (b) Are negotiating for or have an arrangement concerning prospective employment with bidder. The bidder warrants to the best of his knowledge that the submission of the bid will not create such conflict of interest. In the event such a conflict occurs, the bidder is to report it immediately to the Purchasing Manager. For breach or violation of this warranty, the City shall have the right to annul this contract without liability at its discretion, and bidder may be subject to damages and/or debarment or suspension.

24. Disqualification of Bidder:

Any one or more of the following may be considered as sufficient for the disqualification of a prospective Bidder and the rejection of the Bid:

- (a) The Bidder is not responsive or responsible.
- (b) The quality of services, materials, equipment or labor offered does not conform to the approved plans and specifications.
- (c) There is evidence of collusion among prospective Bidders (Participants in such collusion will receive no recognition as Bidders).
- (d) The Bidder lacks the correct contractor's license classification required for the defined scope of work.
- (e) Lack of competency, understanding of the scope of work, adequate machinery, plant and/or equipment as revealed in routine due diligence associated with bid evaluation.
- (f) Unsatisfactory performance record as shown by past work for the City of Sparks, judged from the standpoint of workmanship, progress, and quality of services/goods provided.
- (g) Uncompleted work which, in the judgment of the City of Sparks, might hinder or prevent the prompt completion of additional work, if awarded.
- (h) Failure to pay or satisfactorily settle all bills due for labor and/or material on any contract(s).
- (i) Failure to comply with any requirements of the City of Sparks.
- (j) Failure to list, as required, all subcontractors who will be employed by the Bidder.
- (k) Any other reason determined, in good faith, to be in the best interest of the City of Sparks.

25. Gratuities:

The City may rescind the right of the bidder to proceed under this agreement if it is found that gratuities in the form of entertainment, gifts, cash or otherwise are offered or given by the bidder, or any agent or representative

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of the bidder, to any officer or employee of the City with the intent of influencing award of this agreement or securing favorable treatment with respect to performance of this agreement.

26. Bidder's Security (This Section IS IS NOT Applicable to this bid):

A bid deposit in an amount equal to at least 5% of the bid may be required as a bid security by the City. The bid security may only be in cash, a cashier's or certified check made payable to the City of Sparks, or a bid bond. If the bid security is a bond, it shall be executed by a surety insurer authorized to issue surety bonds in the State of Nevada. All Bonding Companies must have an "A" rating or better with Moody's or A.M. Best Company, and be included on the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bond and as Acceptable Reinsuring Companies" as published in circular 570 (as amended) by the audit staff, Bureau of Accounts, U.S. Treasury Department. (In other words, the company is T-listed.) The bid security must be executed by the bidder and enclosed with the bid proposal in the sealed bid envelope.

27. Performance and Payment Bonds:

Per NRS 339.025, before any contract, except one subject to the provisions of chapter 408 of NRS, exceeding \$100,000 for any project for the new construction, repair or reconstruction of any public building or other public work or public improvement of any contracting body is awarded to any contractor, he shall furnish to the contracting body the following bonds which become binding upon the award of the contract to the contractor (All Bonding Companies must have an "A" rating or better with Moody's or A.M. Best Company, and be included on the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bond and as Acceptable Reinsuring Companies" as published in circular 570 (as amended) by the audit staff, Bureau of Accounts, U.S. Treasury Department. (In other words, the company is T-listed.)):

Performance Bond (This Section IS IS NOT Applicable to this bid):

The Contractor awarded this bid will be required to furnish the City with a surety bond conditioned upon the faithful performance of the contract. This may take the form of a bond executed by a surety company authorized to do business in the State of Nevada and approved by the City of Sparks. The bond shall be in a sum equal to one hundred percent (100%) of the amount of the contract price. Such bond shall be forfeited to the City in the event that bidder receiving the contract shall fail or refuse to fulfill the requirements and all terms and conditions of the contract.

Payment Bond (This Section IS IS NOT Applicable to this bid):

The Contractor awarded this bid will be required to furnish the City with a payment bond. This may take the form of a bond executed by a surety company authorized to do business in the State of Nevada and approved by the City of Sparks. The bond shall be in a sum equal to one hundred percent (100%) of the amount of the contract price. The bond must be solely for the protection of claimants supplying labor or materials to the contractor to whom the contract was awarded, or to any of his subcontractors, in the prosecution of the work provided for in such contract.

28. Indemnification:

To the fullest extent permitted by law, upon award, Contractor shall hold harmless, indemnify, defend and protect City, its affiliates, officers, agents, employees, volunteers, successors and assigns ("Indemnified Parties"), and each of them from and against any and all claims, demands, causes of action, damages, costs, expenses, actual attorney's fees, losses or liabilities, in law or in equity, of every kind and nature whatsoever ("Claims") arising out of or related to any act or omission of Contractor, its employees, agents, representatives,

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or Subcontractors in any way related to the performance of work under this Agreement by Contractor, or to work performed by others under the direction or supervision of Contractor, including but not limited to:

1. Personal injury, including but not limited to bodily injury, emotional injury, sickness or disease, or death to persons;
2. Damage to property of anyone, including loss of use thereof;
3. Penalties from violation of any law or regulation caused by Contractor's action or inaction;
4. Failure of Contractor to comply with the Insurance requirements established under this Agreement;
5. Any violation by Contractor of any law or regulation in any way related to the occupational safety and health of employees.

In determining the nature of the claim against City, the incident underlying the claim shall determine the nature of the claim, notwithstanding the form of the allegations against City.

If City's personnel are involved in defending such actions, Contractor shall reimburse City for the time and costs spent by such personnel at the rate charged City for such services by private professionals.

In cases of professional service agreements, requiring professional liability coverage:

If the insurer by which a Consultant is insured against professional liability does not so defend the City and applicable agents and/or staff, and the Consultant is adjudicated to be liable by a trier of fact, the City shall be entitled to reasonable attorney's fees and costs to be paid to the City by the Consultant in an amount which is proportionate to the liability of the of the Consultant.

Nothing in this contract shall be interpreted to waive nor does the City, by entering into this contract, waive any of the provisions found in Chapter 41 of the Nevada Revised Statutes.

29. Insurance:

BIDDERS' ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW. IT IS HIGHLY RECOMMENDED THAT BIDDERS CONFER WITH THEIR RESPECTIVE INSURANCE CARRIERS OR BROKERS TO DETERMINE IN ADVANCE OF BID SUBMISSION THE AVAILABILITY OF INSURANCE CERTIFICATES AND ENDORSEMENTS AS PRESCRIBED AND PROVIDED HEREIN. IF THE APPARENT LOW BIDDER FAILS TO COMPLY STRICTLY WITH THE INSURANCE REQUIREMENTS, THAT BIDDER MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

The City may, unless otherwise required by law, waive or reduce the insurance requirements itemized here, at the discretion of the city's Contracts and Risk Manager.

Should work be required on City premises or within the public right-of-way, upon award of the contract, the bidder shall provide proof of insurance for the types of coverage, limits of insurance and other terms specified herein, prior to initiation of any services under City, Bid, Proposal or Contract. Coverage shall be from a company authorized to transact business in the State of Nevada and the City of Sparks and shall meet the following minimum specifications:

Contractor shall at its own expense carry and maintain at all times the following insurance coverage and limits of insurance no less than the following or the amount customarily carried by Contractor or any of its

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subcontractors, whichever is greater. Contractor shall also cause each subcontractor employed by Contractor to purchase and maintain insurance of the type specified herein. All insurers must have AM Best rating not less than A-VII, and be acceptable to the City. Contractor shall furnish copies of certificates of insurance evidencing coverage for itself and for each subcontractor. Failure to maintain the required insurance may result in termination of this contract at City’s option. If Contractor fails to maintain the insurance as set forth herein, City shall have the right, but not the obligation, to purchase said insurance at Contractor’s expense.

Contractor shall provide proof of insurance for the lines of coverage, limits of insurance and other terms specified below prior to initiation of any services. Coverage shall be from a company authorized to transact business in the State of Nevada and the City of Sparks. Contractor and any of its subcontractors shall carry and maintain coverage and limits no less than the following or the amount customarily carried by Contractor or any of its subcontractors, whichever is greater.

Applicable to this Contract	Insurance Type	Minimum Limit	Insurance Certificate	Additional Insured	Waiver of Subrogation
Yes	General Liability/Umbrella (Excess) Liability	\$2,000,000	✓	✓	✓
Yes	Automobile Liability	\$1,000,000	✓	✓	
Yes	Workers’ Compensation	Statutory	✓	N/A	✓
Yes	Employer’s Liability	\$1,000,000	✓	N/A	
No	Professional Liability	\$1,000,000	✓	N/A	N/A
No	Pollution Legal Liability	\$1,000,000	✓	N/A	N/A

Commercial General Liability

Contractor shall carry and maintain Commercial General Liability (CGL) and, if necessary to meet required limits of insurance, commercial umbrella/excess liability insurance with a total limit of not less than the limits specified herein.

For contracts that are for the construction or improvement of public facilities, the Contractor shall obtain and maintain products and completed operations liability coverage through the statute of repose after completion of the project. Continuing commercial umbrella coverage, if any, shall include liability coverage for damage to the insured's completed work equivalent to that provided under ISO form CG 00 01.

There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from pollution, explosion, collapse, underground property damage, or damage to the named insured’s work unless Subcontractor carries and maintains separate policies providing such coverage and provides Contractor evidence of insurance confirming the coverage.

Minimum Limits of Insurance

\$2,000,000 Each Occurrence Limit for bodily injury and property damage

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\$2,000,000 General Aggregate Limit
\$2,000,000 Products and Completed Operations Aggregate Limit
\$10,000 Medical Expense Limit

If Commercial General Liability Insurance or other form with a general aggregate limit is used, it shall be revised to apply separately to this PROJECT or LOCATION.

Coverage Form

Coverage shall be at least as broad as the unmodified Insurance Services Office (ISO) Commercial General Liability (CGL) "Occurrence" form CG 00 01 04/13 or substitute form providing equivalent coverage and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

Additional Insured

City, its officers, agents, employees, and volunteers are to be included as insureds using the applicable ISO additional insured endorsement(s) or substitute forms providing equivalent coverage, in respects to damages and defense arising from: activities performed by or on behalf of Contractor, including the insured's general supervision of Contractor; products and completed operations of Contractor; premises owned, occupied, or used by Contractor. The coverage shall contain no special limitations on the scope of protection afforded to City, its officers, employees, or volunteers. Additional insured status for City shall apply until the expiration of time within which a claimant can bring suit per applicable state law.

Primary and Non-Contributory

Contractor's insurance coverage shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to City, its officers, agents, employees, and volunteers. There shall be no endorsement or modification of the CGL to make it excess over other available insurance; alternatively, if the CGL states that it is excess or pro rata, the policy shall be endorsed to be primary with respect to the additional insured. Any insurance or self-insurance maintained by City, its officers, employees, or volunteers shall be excess of Contractor's insurance and shall not contribute with it in any way.

Waiver of Subrogation

Contractor waives all rights against City and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the commercial general liability or commercial umbrella liability insurance maintained pursuant to this agreement. Insurer shall endorse CGL policy as required to waive subrogation against the City with respect to any loss paid under the policy.

Endorsements

Policy forms or endorsements are required confirming coverage for all required additional insureds. The forms or endorsements for CGL shall be at least as broad as the unmodified ISO additional insured endorsement CGO 20 10 07/04 and CG 20 37 07/04 or substitute forms providing additional insured coverage for products and completed operations.

A waiver of subrogation in favor of City shall be endorsed to the policy using an unmodified Waiver of Transfer of Rights of Recovery of Others to Us ISO CG 24 04 05 09, or a substitute form providing equivalent coverage.

Electronic Data Liability

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If any underground work will be performed, Contractor shall maintain electronic data liability insurance applicable to the Project and insuring against liability arising out of the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate electronic data. This coverage shall be maintained with a limit of liability of not less than \$1,000,000 and provide coverage at least as broad as electronic data liability coverage form CG 04 37 (or substitute form providing equivalent coverage).

Railroad Protective Liability

For any construction or demolition work within fifty (50) feet of a railroad, Contractor shall maintain Railroad Protective Liability insurance on behalf of and in the name of the railroad, as named insured, with a limit of \$6,000,000 per occurrence or higher limit if required by the railroad. Contractor shall also ensure that any exclusions pertaining to the indemnification of a railroad are removed from its CGL policy or that ISO form CG 24 17 (Contractual Liability-Railroads Endorsements) is included in the coverage.

Business Automobile Liability

Minimum Limits of Insurance

\$1,000,000 Combined Single Limit per accident for bodily injury and property damage or the limit customarily carried by Contractor, whichever is greater. No aggregate limit may apply. Coverage may be combined with Excess/Umbrella Liability coverage to meet the required limit.

Coverage Form

Coverage shall be at least as broad as the unmodified Insurance Services Office (ISO) Business Automobile Coverage form CA 00 01 10/13, CA 00 25 10/13, CA 00 20 10/13 or substitute form providing equivalent coverage. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos).

Pollution liability coverage at least as broad as that provided under the ISO pollution liability—broadened coverage for covered autos endorsement (CA 99 48) shall be provided, and the Motor Carrier Act endorsement (MCS 90) shall be attached for all contracts involving transportation of “hazardous material” as this term is defined by applicable law, including, but not limited to, waste, asbestos, fungi, bacteria and mold.

Additional Insured

City, its officers, agents, employees, and volunteers are to be included as insureds with respect to damages and defense arising from the ownership, maintenance or use of automobiles owned, leased, hired, or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to City, its officers, employees, or volunteers. Additional insured status for City shall apply until the expiration of time within which a claimant can bring suit per applicable state law.

Endorsements

A policy endorsement is required listing all required additional insureds. The endorsement for Business Automobile Liability shall be at least as broad as the unmodified ISO CA 20 48 10/13 or a substitute form confirming City’s insured status for Liability Coverage under the Who Is An Insured Provision contained in Section II of the coverage form ISO CA 00 01 10/13.

Waiver of Subrogation.

Contractor waives all rights against City, its officers, agents, employees, and volunteers for recovery of damages to the extent these damages are covered by the commercial general liability or commercial umbrella

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liability insurance maintained pursuant to this agreement. Contractor’s insurer shall endorse policy to waive subrogation against City with respect to any loss paid under the policy.

Workers’ Compensation and Employer’s Liability

Contractor shall carry and maintain workers’ compensation and employer’s liability insurance meeting the statutory requirements of the State of Nevada, including but not limited to NRS 616B.627 and NRS 617.210 or provide proof that compliance with the provisions of Nevada Revised Statutes Chapters 616A-D and all other related chapters is not required. It is understood and agreed that there shall be no coverage provided for Contractor or any Subcontractor of the Contractor by the City. Contractor agrees, as a precondition to the performance of any work under this Agreement and as a precondition to any obligation of the City to make any payment under this Agreement to provide City with a certificate issued by an insurer in accordance with NRS 616B.627 and with a certificate of an insurer showing coverage pursuant to NRS 617.210.

It is further understood and agreed by and between City and Contractor that Contractor shall procure, pay for and maintain the above-mentioned coverage at Contractor's sole cost and expense. Should Contractor be self-funded for workers’ compensation and employer’s liability insurance, Contractor shall so notify City in writing prior to the signing of this Contract. City reserves the right to approve said retentions, and may request additional documentation, financial or otherwise, for review prior to the signing of this Contract.

Upon completion of the project, Contractor shall, if requested by City, provide a Final Certificate for itself and each Subcontractor showing that Contractor and each Subcontractor had maintained the required Workers Compensation and Employer’s Liability by paying all premiums due throughout the entire course of the project.

Nevada law allows the following to reject workers’ compensation coverage if they do not use employees or subcontractors in the performance of work under the contract:

- Sole proprietors (NRS 616B.627 and NRS 617.210)
- Unpaid officers of quasi-public, private or nonprofit corporations (NRS 616B.624 and NRS 617.207)
- Unpaid managers of limited liability companies (NRS 616B.624 and NRS 617.207)
- An officer or manager of a corporation or limited liability company who owns the corporation or company (NRS 616B.624 and NRS617.207)

If a contractor has rejected workers’ compensation coverage under applicable Nevada law, the contractor must indicate the basis for the rejection of coverage and complete, sign and have notarized an Affidavit of Rejection of Coverage. The Affidavit must be completed, signed and notarized prior to performance of any work.

Minimum Limits of Insurance

Workers’ Compensation:	Statutory Limits
Employer’s Liability:	\$1,000,000 Bodily Injury by Accident – Each Accident
	\$1,000,000 Bodily Injury by Disease – Each Employee
	\$1,000,000 Bodily Injury by Disease – Policy Limit

Coverage Form

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Coverage shall be at least as broad as the unmodified National Council on Compensation Insurance (NCCI) Workers Compensation and Employer's Liability coverage form WC 00 00 07/11 or substitute form providing equivalent coverage.

OTHER INSURANCE COVERAGES (IF APPLICABLE)

Professional Liability Insurance (if Applicable) \$1,000,000 each claim limits of liability or whatever limit is customarily carried by the Contractor, whichever is greater, for design, design-build or any type of professional services. If coverage is required on a claims-made or claims-made and reported basis, any applicable retroactive or pending & prior litigation dates must precede the effective date of this contract. Continuous coverage shall be maintained, or an extended reporting period shall be obtained for a period of at least three (3) years following completion of the project.

Contractors Pollution Liability Insurance (If Applicable)- \$1,000,000 per occurrence and \$2,000,000 aggregate or whatever amount is acceptable to the City for any exposure to "hazardous materials" as this term is defined in applicable law, including but not limited to waste, asbestos, fungi, bacterial or mold.

Coverage shall apply to bodily injury; property damage, including loss of use of damaged property or of property that has not been physically injured; cleanup costs; and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims.

City shall be included as an insured under Contractor's pollution liability insurance.

If coverage is required on a claims-made or claims-made and reported basis, any applicable retroactive or pending & prior litigation dates must precede the effective date of this contract. Continuous coverage shall be maintained, or an extended reporting period shall be obtained for a period of at least three (3) years following completion of the project.

If the scope of services as defined in this contract includes the disposal of any hazardous materials from the job site, Contractor must furnish to City evidence of pollution liability insurance maintained by the disposal site operator for losses arising from the insured facility accepting waste under this contract. Coverage certified to the City under this section must be maintained in minimum amounts of \$1,000,000 per loss, with an annual aggregate of at least \$2,000,000.

Lower tier sub-subcontractors, Truckers, Suppliers: Evidence confirming lower tier subcontractors, truckers and suppliers are maintaining valid insurance prior to beginning work on the project to meet the requirements set forth herein on Subcontractor, including but not limited to all additional insured requirements of Subcontractor.

ALL COVERAGES

Coverage shall not be suspended, voided, canceled, or non-renewed by either CONTRACTOR or by the insurer, reduced in coverage or in limits except after thirty (30) days' prior written notice has been given to CITY except for ten (10) days' notice for nonpayment of premium.

DEDUCTIBLES AND RETENTIONS

Any deductibles or self-insured retentions that exceed \$100,000.00 per occurrence or claim must be declared to and approved by the City's Contracts and Risk Manager and prior to signing this Contract. City is entitled to request and receive additional documentation, financial or otherwise, prior to giving its approval of the deductibles and self-insured retentions. Any changes to the deductibles or self-insured retentions made during

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the term of this Contract or during the term of any policy must be approved by City's Contracts and Purchasing Manager prior to the change taking effect. Contractor is responsible for any losses within deductibles or self-insured retentions.

OTHER INSURANCE PROVISIONS

Should City and Contractor agree that higher coverage limits are needed warranting a project policy, project coverage shall be purchased and the premium for limits exceeding the above amount may be borne by City. City retains the option to purchase project insurance through Contractor's insurer or its own source.

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to City, its officers, agents, employees, or volunteers.

ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers with a Best's rating of no less than A-VII and acceptable to the City. City, with the approval of the Risk Manager, may accept coverage with carriers having lower Best's ratings upon review of financial information concerning Contractor and insurance carrier. City reserves the right to require that Contractor's insurer be a licensed and admitted insurer in the State of Nevada, or meet any applicable state and federal laws and regulations for non-admitted insurance placement.

VERIFICATION OF COVERAGE

Contractor shall furnish City with certificates of insurance and with original endorsements affecting coverage required by this contract. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

Prior to the start of any Work, Contractor must provide the following documents to City of Sparks, Attention: Purchasing Division, P.O. Box 857, Sparks, NV 89432-0857:

- A. Certificate of Insurance.** Contractor must provide a Certificate of Insurance form to the City of Sparks to evidence the insurance policies and coverage required of Contractor.
- B. Additional Insured Endorsements.** An original Additional Insured Endorsement, signed by an authorized insurance company representative, must be submitted to the City of Sparks, by attachment to the Certificate of Insurance, to evidence the endorsement of the City of Sparks as additional insured.
- C. Policy Cancellation Endorsement.** Except for ten (10) days' notice for non-payment of premium, each insurance policy shall be endorsed to specify that without thirty (30) days prior written notice to the City of Sparks, the policy shall not be suspended, voided, cancelled or non-renewed, and shall provide that notices required by this paragraph shall be sent by certified mailed to the address specified above. A copy of this signed endorsement must be attached to the Certificate of Insurance. If endorsements are not available, Contractor shall be responsible to provide prior written notice to City as soon as practicable upon receipt of any notice of cancellation, non-renewal, reduction in required limits or other material change in the insurance required under this Agreement.
- D. Bonds (as Applicable).** Bonds as required and/or defined in the original bid documents.

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All certificates and endorsements are to be addressed to the City of Sparks, Purchasing Division and be received and approved by City before work commences. The City reserves the right to require complete certified copies of all required insurance policies at any time.

SUBCONTRACTORS

Contractor shall include all Subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each Subcontractor. All coverages for Subcontractors shall be subject to all the requirements stated herein.

MISCELLANEOUS CONDITIONS

1. Contractor shall be responsible for and remedy all damage or loss to any property, including property of City, caused in whole or in part by Contractor, any Subcontractor, or anyone employed, directed, or supervised by Contractor.
2. Nothing herein contained shall be construed as limiting in any way the extent to which Contractor may be held responsible for payment of damages to persons or property resulting from its operations or the operations of any Subcontractors under it, and such coverage and limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to City in this contract.
3. In addition to any other remedies City may have if Contractor fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option:
 - a. Purchase such insurance to cover any risk for which City may be liable through the operations of Contractor under this Agreement and deduct or retain the amount of the premiums for such insurance from any sums due under the Agreement;
 - b. Order Contractor to stop work under this Agreement and/or withhold any payments which become due Contractor here under until Contractor demonstrates compliance with the requirements hereof; or,
 - c. Terminate the Agreement.
4. If Contractor's liability policies do not contain the standard ISO separation of insureds condition, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

30. Safety Program:

Upon award, the Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. The Contractor shall take all necessary precautions for the safety of, and shall provide all necessary protection to prevent damage, injury, or loss to:

1. All employees on the work site and all other persons who may be affected thereby.
2. All the work, materials, and equipment to be incorporated therein, whether in storage on or off the site.
3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

Contractor shall comply with all applicable laws, ordinances, rules, regulations, and others of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss. He shall erect and maintain, as required by existing conditions and progress on the work, all necessary safeguards for safety and protection, including posting danger signs, other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent utilities. Contractor shall comply with OSHA'S Hazard Communication Standards.

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Contractor shall designate a responsible member of its organization at the site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless otherwise designated in writing by Contractor to the Owner and the Engineer.

31. Award of Contract:

- (a) Bids/Proposals will be analyzed and award will be made to the lowest, responsive and responsible bidder whose bid conforms to the solicitation and whose bid is considered to be most advantageous to the City, price and other factors considered. Factors to be considered may include, but are not limited to: bidder's past performance, total unit cost, economic cost analysis, life cycle costs, warranty and quality, maintenance cost, durability, the operational requirements of the City and any other factors which will result in the optimum economic benefit to the City.
- (b) The City reserves the right to reject any item or items, to waive informalities, technical defects and minor irregularities in bids/proposals received; and to select the bid(s) or proposal(s) deemed most advantageous to the City. Should the City elect to waive a right it will not constitute an automatic waiver of that right in the future nor will it impact any other right or remedy. The City may consider bids/proposals submitted on an "all or nothing" basis if the bid/proposal is clearly designated as such.
- (c) The City reserves the right to award one or more contracts on the bids/proposals submitted, either by award of all items to one bidder or by award of separate items or groups of items to various bidders as the interests of the City may require, unless the bidder clearly specifies otherwise in his bid.
- (d) Upon acceptance by the City of Sparks, the solicitation, bid, proposal, or price quotation and issuance of a purchase order issued to the successful bidder shall be deemed to result in a binding contract incorporating those terms and these General Conditions without further action required by either party. Items are to be furnished as described in the bid and in strict conformity with all instructions, conditions, specifications, and provisions in the complete contract, as defined by this clause or any related integrated agreement.

32. Request for Proposal (RFP) Submittals:

In the case of Request for Proposals (RFP's), it should be noted that the documents submitted by prospective bidders are competitive sealed proposals and not competitive sealed bids. When proposals are opened, prices and other information will not be made public until the proposal is awarded. There shall be no disclosure of any bidder's information to competing bidders prior to the award of the proposal.

By their nature, proposals will include a number of variables that will vary based on the complexity of the product or service addressed within the proposal. Therefore, the evaluation of RFP's and the recommendation for award will not be based on price alone. Selection criteria will be better defined for each scope of work in the Special Conditions section of this bid.

Upon award of the contract, the executed contract and proposals will become public information. Accordingly, each proposal should be submitted on the vendor's most favorable terms from a price and technical standpoint.

33. Bidder Preference Law (This Section IS IS NOT Applicable to this bid):

This project will be bid and awarded under the Provisions(s) of NRS 338.147, which restricts preference given to certain contractors on Public Works Projects. The NRS cited in this section is meant to be a reference only. Each bidder shall acquaint himself with the latest provisions of NRS 338.147.

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If the Contract for any Public Works Construction Project is expected to cost \$250,000 or more, then all Contractors wishing to receive benefit of their preference status in the evaluation of bids must submit a copy of their Certificate of Bidder Preference issued by the State Contractor's Board. (Call 775-688-1141 or 775-486-1100 to obtain certification information from the State Contractors Board). Contractors who do not submit a preference certificate at the time of their bid are presumed to have wished not to exercise the benefit of their preference, or do not possess the certificate of eligibility.

To the extent Contractor has sought, qualified and receives a bidding preference on this project, pursuant to Nevada Revised Statutes Chapter 338, Contractor acknowledges and agrees that the following requirements will be adhered to, documented and attained for the duration of the Project:

1. At least 50 percent of the workers employed on the Project (including subcontractors) hold a valid driver's license or identification card issued by the Nevada Department of Motor Vehicles;
2. All vehicles used primarily for the public work will be (a) registered and (where applicable) partially apportioned to Nevada; or (b) registered in Nevada; and
3. The Contractor shall maintain and make available for inspection within Nevada all payroll records related to the Project.

Contractor recognizes and accepts that failure to comply with any requirements herein shall be a material breach of the contract and entitle the City of Sparks to liquidated damages in the amount set by statute. In addition, the Contractor recognizes and accepts that failure to comply with any requirements herein may lose its certification for a preference in bidding and/or its ability to bid on any contracts for public works pursuant to NRS Chapter 338.

To the extent Contractor has sought, qualified and receives a bidding preference, and this project has a value of over \$250,000 pursuant to Nevada Revised Statutes Chapter 338, each contract between the contractor, applicant or design-build team and a subcontractor must provide for the apportionment of liquidated damages assessed pursuant to this section if a person other than the Contractor was responsible for the breach of a contract for a public work caused by a failure to comply with a requirement of Items 1-3 within this section. The apportionment of liquidated damages must be in proportion to the responsibility of each party for the breach.

This section shall not be applicable for projects in which some or all of the funding comes from Federal sources.

34. Tie Bids:

Should identical low, responsive and responsible bids be received from two bidders, the City of Sparks Purchasing Manager shall notify all parties involved in the tie and may at his option utilize a coin-flip to determine the low bidder who shall be recommended for award. Or;

Should there be three or more low, responsive and responsible tie bids the Purchasing Manager shall exercise the following tie breaking method, unless another alternative is apparent and prudent: The City of Sparks Purchasing Manager shall set a mutually agreed upon time where, in his office, he shall shuffle a new deck of playing cards and have each bidder's representative cut the cards. The tie bidder who cuts the highest card (with Ace high) shall be recommended for bid award.



35. Appeals/Protests – Bids Only (Not Applicable to Request for Proposals):

A person who submits a bid on a contract may, after the bids are opened and within 5 business days after the date the “Recommendation to Award” is issued by the City, unless otherwise stated in the Special Conditions, file a notice of protest regarding the awarding of the contract. The City’s “Recommendation to Award” will be dated and posted on the City’s public website within the area where bid notices and bid re-caps are posted (Currently: <http://www.cityofsparks.us/bids>).

- (a) A notice of protest must include a written statement setting forth with specificity the reasons the person filing the notice believes the applicable provisions of law were violated.
- (b) A person filing a notice of protest may be required by the governing body or its authorized representative, at the time the notice of protest is filed, to post a bond with a good and solvent surety authorized to do business in this State or submit other security, in a form approved by the governing body or its authorized representative, to the governing body or its authorized representative who shall hold the bond or other security until a determination is made on the protest. A bond posted or other security submitted with a notice of protest must be in an amount equal to the lesser of:
 - (1) Twenty-five percent of the total value of the bid submitted by the person filing the notice of protest; or
 - (2) Two hundred fifty thousand dollars (\$250,000).
- (c) A notice of protest filed in accordance with the provisions of this section operates as a stay of action in relation to the awarding of any contract until a determination is made by the governing body or its authorized representative on the protest.
- (d) A person who submits an unsuccessful bid may not seek any type of judicial intervention until the governing body or its authorized representative has made a determination on the protest and awarded the contract.
- (e) A governing body or its authorized representative is not liable for any costs, expenses, attorney’s fees, loss of income or other damages sustained by a person who submits a bid, whether or not the person files a notice of protest pursuant to this section.
- (f) If the protest is upheld, the bond posted or other security submitted with the notice of protest must be returned to the person who posted the bond or submitted the security. If the protest is rejected, a claim may be made against the bond or other security by the governing body or its authorized representative in an amount equal to the expenses incurred by the governing body or its authorized representative because of the unsuccessful protest. Any money remaining after the claim has been satisfied must be returned to the person who posted the bond or submitted the security.

36. Documentation:

Due to the time constraints that affect contract performance, all required documents, certificates of insurance and bonds shall be provided to the City within ten (10) calendar days following award or date of request by City, whichever is later. Any failure to comply may result in bid being declared non-responsive and rejected, and at City’s option, the bid bond may be attached for damages suffered.

37. Discounts:

- (a) Prompt payment discounts will not be considered in evaluating bids for award. However, offered discounts will be taken if payment is made within the discount period, even though not considered in the evaluation of bids.
- (b) In connection with any discount offered, time will be computed from date of delivery and acceptance, or invoice receipt, whichever is later. Payment is deemed to be made for the purpose of earning the discount on the date of mailing of the City check.

General Conditions



(c) Any discount offered other than for prompt payment should be included in the net price quoted and not included in separate terms. In the event this is not done, the City reserves the right to accept the discount offered and adjust prices accordingly on the Purchase Order.

38. Seller's Invoice:

Invoices shall be prepared and submitted in duplicate to the address shown on the Purchase Order. Separate invoices are required for each Purchase Order. Invoices shall contain the following information: Purchase Order number, item number, description of supplies or services, sizes, unit of measure, quantity, unit price and extended totals.

39. Inspection and Acceptance:

Inspection and acceptance will be at destination unless specified otherwise, and will be made by the City department shown in the shipping address or other duly authorized representative of the City. Until delivery and acceptance, and after any rejection, risk of loss will be on the bidder unless loss results from negligence of the City.

40. Lost and Damaged Shipments:

Risk of loss or damage to items prior to the time of their receipt and acceptance by the City is upon the bidder. The City has no obligation to accept damaged shipments and reserves the right to return at the bidder's expense damaged merchandise even though the damage was not apparent or discovered until after receipt of the items.

41. Late Shipments:

Bidder is responsible to notify the City department receiving the items and the Purchasing Manager of any late or delayed shipments. The City reserves the right to cancel all or any part of an order if the shipment is not made as promised.

42. Document Ownership:

All technical documents and records originated or prepared pursuant to this contract, including papers, reports, charts, and computer programs, shall be delivered to and become the exclusive property of the City and may be copyrighted by the City. Bidder assigns all copyrights to City by undertaking this agreement.

43. Advertisements, Product Endorsements:

City employees and agencies or organizations funded by the City of Sparks are prohibited from making endorsements, either implied or direct, of commercial products or services without written approval of the City Manager. No bidder may represent that the City of Sparks has endorsed their product or service without prior written approval.

44. Vendor Workplace Policies

No Vendor providing a service, program or activity to the public on behalf of the City shall discriminate against any person because of sex, race, color, creed, national origin or disability. Vendor, if providing a service, program or activity to the public on behalf of the City, shall comply with the Americans with Disability Act and City's policies pursuant thereto when providing said service, program or activity.

The City of Sparks is an Affirmative Action/Equal Opportunity Employer. Bidders shall be cognizant of the requirements for compliance with Executive Order 11246, entitled "Equal Employment Opportunity" as

General Conditions



amended by Executive Order 11375 and as supplemented in regulations of the U.S. Department of Labor (41 CFR part 60).

45. Business License Requirement:

All companies doing business with, or within, the City of Sparks are required to obtain and maintain a current business license from the City of Sparks prior to the commencement of work per Sparks Municipal Code Section 5.08.020A. Bidder(s) awarded a contract resulting from this bid shall be required to obtain a current business license if they do not already possess one.

46. City Provisions to Prevail:

Except as indicated in the specifications, the City's standard General Conditions shall govern any contract award. Any standard terms and conditions of bidder submitted by bidder shall not be acceptable to City unless expressly agreed to by the City. The City reserves the right to reject bidder's bid as non-responsive, to consider the bid without bidder's standard terms and conditions, or to require bidder to delete reference to such, as a condition of evaluation or award of the bid. If, after award of contract, bidder (contract vendor) provides materials or services accompanied by new or additional standard terms or conditions, they too shall be considered void and City may require deletion as a further condition of performance by vendor.

47. Invalid Provisions:

In the event that any one or more of the provisions of this agreement shall be found to be invalid, illegal or unenforceable, the remaining provisions shall remain in effect and be enforceable.

48. Amendments and Modifications:

The Purchasing Manager may at any time, by written order, and without notice to the sureties, make a modification to the contract or an amendment to the Purchase Order, within the general scope of this contract, in (1) quantity of materials or service, whether more or less; (2) drawings, designs, or specifications, where the supplies to be furnished are to be specially manufactured for the City; (3) method of shipment or packing; and (4) place of delivery. If any such change causes an increase or decrease in the cost or the time required for the performance of this contract, an equitable adjustment shall be made by written modification of the contract or amendment to the Purchase Order. Any claim by the bidder for adjustment under this clause must be asserted within 30 calendar days from the notification date.

49. Assignment:

Vendor shall not assign or delegate duties or responsibilities under this agreement, in whole or in part, without prior written approval of the City.

50. Disputes After Award:

Except as otherwise provided in these provisions, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Purchasing Manager, who shall reduce this decision to writing and mail a copy to the bidder. The decision of the Purchasing Manager shall be final and conclusive, unless bidder requests arbitration within ten (10) calendar days. Pending final decision of a dispute, the bidder shall proceed diligently with the performance of the contract and in accordance with the Purchasing Manager's decision.

51. Arbitration after Award:

Any and all disputes, controversies or claims arising under or in connection with the contract resulting from this bid, including without limitation, fraud in the inducement of this Contract, or the general validity or

General Conditions



enforceability of this Contract, shall be governed by the laws of the State of Nevada without giving effect to conflicts of law principles, may be submitted to binding arbitration before one arbitrator, and shall be conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association in a private manner in Washoe County, Nevada. This award shall be final and judgment may be entered upon it in any court having jurisdiction thereof. In reaching this final award, the arbitrator shall have no authority to change or modify any provision of this Contract. All other expenses of arbitration shall be borne equally by the parties. All fees, including legal fees, shall be borne by the party who incurred them. All costs of enforcement shall be borne by the losing party. Each party shall have the right to discovery in accordance with the Nevada Rules of Civil Procedure.

52. Lawful Performance:

Vendor shall abide by all Federal, State and Local Laws, Ordinances, Regulations, and Statutes as may be related to the performance of duties under this agreement. In addition, all applicable permits and licenses required shall be obtained by the vendor, at vendor's sole expense.

53. Annual Appropriation of Funds:

Multi-year term supply and service contracts and leases are subject to annual appropriation of funds by the City Council. The City plans and makes appropriations to the City Budget with respect to a fiscal year that starts July 1st and ends June 30th of each year. Payments made under term contracts and leases are considered items of current expense. Purchase Orders are funded when issued; therefore, they are current expense items and are not subject to any subsequent appropriation of funds.

Continuance of a multi-year contract beyond the limits of funds available shall be contingent upon appropriation of the requisite funds in the ensuing fiscal year and the termination of this contract due to lack of appropriation shall be without penalty.

54. Extension:

When in the City's best interest, this agreement may be extended on a daily, month-to-month, or annual basis by mutual agreement of both parties. Services and/or materials received under an extension shall be in accordance with pricing, terms, and conditions, as described herein.

55. Termination:

The City may terminate this agreement and be relieved of any consideration to the vendor should vendor fail to perform in the manner required. Furthermore, the City may terminate this agreement for any reason without penalty upon giving thirty (30) days written notice to the vendor. In the event of termination, the full extent of City liability shall be limited to an equitable adjustment and payment for materials and/or services authorized by and received to the satisfaction of the City prior to termination.

56. Venue:

This agreement shall be governed by and interpreted according to the laws of the State of Nevada, and venue for any proceeding shall be in Washoe County.

Special Conditions and Specifications (Specific to Project)

In instances where the Special Conditions conflict with the General Conditions, the Special Conditions will prevail with respect to that instance or item(s).

**SPECIAL PROVISIONS
FOR
CITY OF SPARKS
SANITARY SEWER CIPP LINING - FISCAL 2024
Bid# 23/24-011, PWP# WA-2024-164**

These Special Provisions supplement and modify the "Standard Specifications for Public Works Construction" (Orange Book), 2012 Edition, and adopted by the City of Sparks, Nevada. All of the requirements and provisions of said Standard Specifications shall apply except where modified by the City General Conditions, Contract forms, plans, technical specifications and these Special Provisions (all contained within this bid document).

SECTION 1: SCOPE OF WORK

The work performed under this Contract consists of but is not limited to: CIPP (Cured-In-Place Pipe) lining of approximately 3,580 linear feet of existing underground sanitary sewer main with approximately 67 reinstatements of existing active laterals, approximately 94 each of spot repairs, approximately 105 each of service connection liners, and all appurtenant work necessary to complete the project as stated in the Bid Item Clarifications and Plans. Select laterals may require a sealed connection following final CCTV inspection. Note CONTRACTOR must make own determination of lengths prior to bidding and construction. The locations of the work are within the city limits of the City of Sparks, Washoe County, Nevada, and are more specifically designated below:

1.1 Reed High School Project Zone

a. Area A

- 1) SSL003304: Remove roots and install four 2 LF short liners.
- 2) SSL003298: Remove roots, install two 2 LF of short liners, and install two 360°-main lateral seals.
- 3) SSL003286: Remove roots, install two 2 LF of short liners, and install one 360°-main lateral seal.
- 4) SSL003297: Remove roots and install five 360°-main lateral seals.
- 5) SSL000921: Remove roots and install three 2 LF of short liners.
- 6) SSL003288: Remove roots and install one 360°-main lateral seal.
- 7) SSL003300: Remove roots, install three 2 LF of short liners, and install five 360°-main lateral seals.

b. Area B

- 1) SSL003334: Remove roots, install three 2 LF of short liners, and install two 360°-main lateral seals.

- 2) SSL003356: Remove roots and install two 2 LF of short liners.
 - 3) SSL003317: Remove roots and install 360°-main lateral seal.
 - 4) SSL003345: Remove roots and install three 360°-main lateral seals.
- c. **Area C**
- 1) SSL003380: Install 4 LF of short liner.
 - 2) SSL003368: Remove roots and install 360°-main lateral seal.
 - 3) SSL003376: Remove roots and install 2 LF of short liner.
- d. **Area D**
- 1) SSL000882: Remove roots, install one 2 LF of short liner, one 4 LF of short liner, and install three 360°-main lateral seals.
 - 2) SSL000881: Remove roots and install three 2 LF of short liners.
 - 3) SSL003449: Remove roots and install two 360°-main lateral seals.
 - 4) SSL000888: Remove roots, install 2 LF of short liner, and install 360°-main lateral seal.
 - 5) SSL000894: Remove roots, install 2 LF of short liner, and install two 360°-main lateral seals.
- e. **Area E**
- 1) SSL000895: Install full 346± LF CIPP lining.
 - 2) SSL000896: Remove roots and install three 2 LF of short liners.
 - 3) SSL003495: Remove roots and install two 2 LF of short liners.
 - 4) SSL003493: Install full 233± LF CIPP lining.
 - 5) SSL003461: Remove roots, install two 2 LF of short liners, and install 360°-main lateral seal.
 - 6) SSL003462: Install full 257± LF CIPP lining.
 - 7) SSL003439: Install 2 LF of short liner.
 - 8) SSL003437: Remove roots, install three 2 LF of short liners, and install 360°-main lateral seal.
- f. **Area F**

- 1) SSL000705: Remove roots and install two 2 LF of short liners.
- 2) SSL000711: Install full 98± LF CIPP lining.
- 3) SSL000712: Remove roots, install 4” top hat, and install full 319± LF CIPP lining.
- 4) SSL000714: Remove roots and install two 2 LF of short liner.

g. Area G

- 1) SSL000673: Remove roots, install four 4” top hats, and install full 332± LF CIPP lining.
- 2) SSL000674: Remove roots, install three 2 LF of short liners, and install four 360°-main lateral seals.
- 3) SSL003353: Install 4 LF of short liner.

h. Area H

- 1) SSL003406: Install 2 LF of short liner.
- 2) SSL003426: Install 2 LF of short liner.
- 3) SSL003387: Install 1 LF of short liner and grind down protruding lateral.
- 4) SSL001405: Remove roots and install 2 LF of short liner.
- 5) SSL003471: Remove roots and install 2 LF of short liner.

i. Area I

- 1) SSL001401: Remove roots, install two 1 LF of short liners, and install 360°-main lateral seal.
- 2) SSL003430: Install 1 LF of short liner.
- 3) SSL003482: Install 1 LF of short liner.
- 4) SSL003484: Remove roots and install 360°-main lateral seal.

1.2 Dilworth Middle School Project Zone

a. Area A

- 1) SSL001819: Install 2 LF of short liner.
- 2) SSL001813: Remove roots, install two 1 LF of short liners, and install 4” top hat.

- 3) SSL001781: Remove roots and install three 4" top hats.
- 4) SSL001817: Remove roots and install two 4" top hats.
- 5) SSL001823: Remove roots and install 4" top hat.

b. **Area B**

- 1) SSL001703: Remove roots and install 18 LF of short liners.
- 2) SSL001705: Remove roots and install 2 LF of short liner.
- 3) SSL001699: Remove roots, install 4" top hat, and install full 300± LF CIPP lining.
- 4) SSL001700: Remove roots, install two 4" top hat, and install full 293± LF CIPP lining.
- 5) SSL001701: Remove roots, install 2 LF of short liner, and install five 360°-main lateral seals.
- 6) SSL001710: Remove roots, install three 4" top hats, and install full 231± LF CIPP lining.
- 7) SSL001712: Remove roots and install 360°-main lateral seal.
- 8) SSL001713: Remove roots, install one 2 LF of short liner, one 4 LF of short liner, and install four 360°-main lateral seals.
- 9) SSL001728: Remove roots and install 10" diameter 360°-main lateral seal.

c. **Area C**

- 1) SSL001889: Remove roots, install 2 LF of short liner, and install 4" top hat.
- 2) SSL001891: Remove roots and install four 4" top hats.
- 3) SSL001890: Remove roots and install five 4" top hats.
- 4) SSL001826: Remove roots and install full 91± LF CIPP lining.
- 5) SSL001806: Remove roots and install full 225± LF CIPP lining.
- 6) SSL003642: Install full 106± LF 10" diameter CIPP lining.
- 7) SSL001808: Remove roots, install 4" top hat, and install full 165± LF CIPP lining.

d. **Area D**

- 1) SSL001751: Remove roots, install 2 LF of short liner, and install two 360°-main lateral seals.
- 2) SSL001754: Remove roots, install 6 LF of short liners, and install 8 LF of short liners.
- 3) SSL001755: Remove roots, install 2 LF of short liner, and install two 360°-main lateral seals.
- 4) SSL000632: Install full 301± LF CIPP lining.
- 5) SSL003614: Install 2 LF of short liner.
- 6) SSL028704: Install 2 LF of short liner.

e. **Area E**

- 1) SSL003660: Install 2 LF of short liner.
- 2) SSL003666: Install 2 LF of short liner.
- 3) SSL003703: Remove roots and install two 360°-main lateral seals.
- 4) SSL003717: Remove roots, install 2 LF of short liner, and install two 360°-main lateral seals.
- 5) SSL001864: Install 2 LF of short liner.
- 6) SSL001862: Remove roots and install 360°-main lateral seal.

f. **Area F**

- 1) SSL003679: Remove roots, install 2 LF of short liner, and install 360°-main lateral seal.
- 2) SSL003698: Remove roots and install 2 LF of short liner.

1.3 **Sparks Middle School Project Zone**

a. **Area A**

- 1) SSL005906: Remove roots, install two 2 LF of short liners, and install 360°-main lateral seal.
- 2) SSL017371: Remove roots, install one 2 LF of short liner, one 4 LF of short liner, and install two 360°-main lateral seals.
- 3) SSL005947: Remove roots, install three 2 LF of 10" diameter short liners, and install 10" diameter 360°-main lateral seal.

b. Area B

- 1) SSL005957: Install full 285± LF CIPP lining.
- 2) SSL002078: Remove roots and install 2 LF of short liner.
- 3) SSL019643: Remove roots and install 2 LF of short liner.
- 4) SSL001529: Remove roots and install four 360°-main lateral seals.

c. Area C

- 1) SSL001543: Remove roots and install 360°-main lateral seal.
- 2) SSL001548: Remove roots, install 2 LF of short liner, and install four 360°-main lateral seal.
- 3) SSL001549: Remove roots and install two 360°-main lateral seals.
- 4) SSL001540: Remove roots and install two 360°-main lateral seals.
- 5) SSL001541: Remove roots and install 360°-main lateral seal.

SECTION 2: SPECIAL PROVISIONS

The requirements set forth in these “Special Provisions” shall be used in addition to those set forth in “Standard Specifications for Public Works Construction”.

SECTION 3: STANDARD SPECIFICATIONS

All materials furnished and work performed shall be done in accordance with the 2012 version of the “Standard Specifications for Public Works Construction” (Orange Book) and any revisions thereto if not covered or amended by the Special Provisions. The “Standard Specifications for Public Works Construction” are herein referred to as “Standard Specifications”.

SECTION 4: STANDARD DETAILS

All materials furnished and work performed shall be done in accordance with the most current edition of the City of Sparks “Standard Details” located on the City’s website. For any work not specifically covered by the City’s ‘Standard Details’, the contractor shall refer to the “Standard Details for Public Works Construction” (Orange Book), and any revisions thereto if not covered or amended by the Special Provisions and/or modified by the drawings.

SECTION 5: NOTICE TO PROCEED AND TIME SCHEDULE

An official "Notice to Proceed" specifying the date by which construction operations shall be started will be issued in writing and delivered to the CONTRACTOR by the City at the Pre-construction Meeting. Contract time will begin on the date specified in the "Notice to Proceed", unless operations begin at an earlier date, in which case the date that such operations begin will apply. The CONTRACTOR shall immediately begin and diligently prosecute the work to completion. The CONTRACTOR shall obligate

himself to complete the work within the stated time limits. All work described in this document shall be completed within **seventy (70) working days** from the time of issuance of the Notice to Proceed. Reference Section 33 of these Special Provisions for additional requirements.

SECTION 6: LIQUIDATED DAMAGES

In case all work called for under the contract is not completed before or upon the expiration of the time limits set forth above, it is agreed by the parties to the contract that damage will be sustained by the City and that it will be impracticable to determine accurately the actual damage the City will sustain in the event of any such delay. Therefore, the CONTRACTOR shall pay to the City:

- ONE THOUSAND DOLLARS (\$1,000.00) for each and every working day delay after seventy (70) working day completion time limit.

In finishing the work in excess of the dates prescribed and the City shall further have the right to charge to the CONTRACTOR, his heirs, assigns or sureties and to deduct from the final payment for the work, all or any part as it may deem proper of the actual cost of which are directly chargeable to the contract and which accrue during the period of such extensions, except that the cost of the final surveys and preparation of final estimate shall not be included in such charges.

The City may deduct this amount from any money due or that may become due the CONTRACTOR under the contract. This payment shall not be considered as a penalty, but as liquidated damages suffered by the City on account of the failure of the CONTRACTOR to complete the work within the time limit of the contract.

SECTION 7: EXCUSABLE DELAYS

The CONTRACTOR shall not be assessed with liquidated damage nor the cost of engineering inspection during any delay in the completion of the work caused by acts of God, the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or due to such causes, provided that the CONTRACTOR shall within ten (10) days from the beginning of such delay notify the Project Manager in writing of the causes of delay. The Project Manager's findings of the facts thereon shall be final and conclusive.

SECTION 8: INTENT OF THE PLANS AND SPECIFICATIONS

The intent of the plans and specifications is to prescribe a complete outline of work, which the CONTRACTOR undertakes to do in full compliance with the Contract.

The CONTRACTOR shall furnish all required materials, equipment, tools, labor and incidentals, unless otherwise provided in the Contract and shall include the cost of these items in the Contract unit prices for the several units of work. All items of work called for on the plans or in the specifications and not included as a separate item in the proposal shall be considered as incidental to the other items listed in the proposal and the payment for such incidental items shall be considered as included in the Contract unit prices bid.

SECTION 9: AUTHORITY OF THE PROJECT MANAGER AND INSPECTOR

All work shall be done under the supervision of the Project Manager acting on behalf of the City. He shall decide all questions that arise as to the quality and acceptability of materials furnished, work performed, manner of performance, rates of progress, interpretation of the plans and specifications, acceptable

fulfillment of the contract and compensation under the specifications. He shall determine the amount of work performed and materials furnished, and his decision and estimate shall be final. His estimate shall be "condition precedent" to the right of the CONTRACTOR to receive money due him under the contract. The Project Manager does not have authority to authorize changes in plans and specifications without prior written approval of the Engineer.

The City shall provide an inspector who will represent the City and the Project Manager and shall make inspections of all work, sample and test materials and do such other work relative to supervision of the project as he may be assigned by the City. All instructions given by the inspector are subject to approval by the Project Manager.

SECTION 10: CHANGE ORDERS

The City of Sparks reserves the right to make alterations or supplements to the Contract. Change Order Forms are required for all changes in decreases and/or increases of quantities and/or dollar amount changes in accordance with the "Standard Specifications."

SECTION 11: COOPERATION WITH OTHER CONTRACTORS

The CONTRACTOR shall cooperate with other contractors who may be employed by the City on construction of other work adjacent to or in proximity of the location of the project.

SECTION 12: DISPOSAL OF EXCESS AND WASTE MATERIALS

Trash, construction debris, cleared vegetation, excavated material unsuitable to be incorporated in the construction shall become the property of the CONTRACTOR and shall be removed by the CONTRACTOR and shall be legally disposed of offsite in accordance with all federal, state and local regulations at CONTRACTOR's expense.

SECTION 13: LIMITS OF CONTRACTOR'S OPERATIONS

The CONTRACTOR will confine his operations within the street right-of-way and affected private property as shown in the drawings. If the CONTRACTOR's operations result in damage to any publicly or privately-owned facilities outside the limitations of the construction easement, the CONTRACTOR shall, at his expense, repair such damage or indemnify the owner of the damaged property.

The CONTRACTOR shall take all necessary precautions to preserve private and public property in the immediate area of all construction locations. Complete liability shall be assumed by the CONTRACTOR for any damage to private and public property during the execution of work. Upon completion of the work, all private and public property shall be, at a minimum, restored to the same or better physical condition as that prior to the commencement of work thereon.

If the CONTRACTOR's operations result in damage to any publicly or privately owned facilities outside the limitations of the construction easement, the CONTRACTOR shall, at his expense, repair such damage or indemnify the owner of the damaged property.

If the CONTRACTOR negotiates with property owners for the use of land for construction operations outside the limits of the street right-of-way for purposes other than accessing manholes for lining operations, he shall do so at his own risk and the City will assume no liability for such use of private

property. All agreements between the CONTRACTOR and private property owners shall be in writing and the City will be furnished copies of such agreements.

At no time will the CONTRACTOR be allowed to store debris or materials on the street overnight. All asphalt, concrete, soil and aggregate base will be hauled off at the conclusion of each working day.

SECTION 14: PROTECTION OF EXISTING UTILITIES

If the CONTRACTOR proposes any action for the excavation of a pipe repair or replacement, the CONTRACTOR shall notify Underground Services Alert (USA Dig) at 1-800-227-2600, and City of Sparks, NV Energy, Truckee Meadows Water Authority (TMWA), Charter Communications, and other known utilities within the project area not less than five (5) working days prior to the excavation to verify the location and depths of utilities.

The CONTRACTOR shall take inventory of the exact location of all vaults, boxes, conduits, ducts, cables, pipe systems, etc. and shall protect said utilities. Any damage caused by operation of the CONTRACTOR shall be repaired by the CONTRACTOR at his own expense. It shall be the CONTRACTOR's responsibility to contact the impacted utility for any replacement hardware.

The CONTRACTOR shall submit the utility inventory to the Project Manager and the utility companies upon the completion of utility lowering activities. The CONTRACTOR shall also keep a copy of the utility location inventory list on the project work site at all times for emergency shutoff purposes.

It shall be the CONTRACTOR's responsibility to adjust all surface mounted utility appurtenances, such as manholes, survey monument covers and valve boxes to grade consistent with the grade of the restored street surface.

SECTION 15: CONTRACT AMOUNT

The total amount payable under this Contract shall be determined by the sum of the amounts earned and the various quantities of repairs actually made and determined from unit prices as furnished by the CONTRACTOR in the schedule of prices contained in his proposal. The various quantities of repairs in the bid proposal are estimates and the City of Sparks reserves the right to vary quantities as may be necessary.

SECTION 16: PRECONSTRUCTION CONFERENCE

After the execution of the Contract, but prior to the commencement of any work, a preconstruction conference between the CONTRACTOR and the City of Sparks will be held at a mutually acceptable time and place.

SECTION 17: MEASUREMENT FOR PAYMENT

Whenever possible, the actual quantities installed or work performed on any project shall be measured on the site of the work by a crew composed of both the CONTRACTOR and the Project Manager or Inspector. This combined crew shall record all measured quantities in field notebooks, in legible and understandable entries. The CONTRACTOR and the Project Manager or Inspector shall each have a set of field notes which are to be in agreement on all quantities and items measured and shall include all work accomplished on the project under Contract. Each set of field measurements shall be initialed and dated by responsible representatives of the CONTRACTOR and the Project Manager or Inspector participating on the combined

crew. In the event that it is not possible to form a combined crew for the measurements, the area repaired shall be measured by the Project Manager or Inspector.

SECTION 18: PRE/POST-CONSTRUCTION WALK-THROUGH

The CONTRACTOR, Inspector, and/or Project Manager shall conduct a pre- and post-construction walk-through. This shall be accomplished to determine limits of construction and existing conditions at each site and the surrounding area.

The CONTRACTOR will be required to video the surface features of the entire project prior to any construction including all affected properties and staging locations. This video will be provided to the City. Areas near the property lines, back of sidewalk and driveways, landscaping, mow strips, fences and edging should be filmed in great detail to avoid any damage or disputes with property owners if work is anticipated in the vicinity. The CONTRACTOR will be required to replace and/or repair all areas that is damaged by construction activities. Areas that are in question or concern should be noted on the video and the CONTRACTOR shall notify the Project Manager or Inspector.

SECTION 19: WORKING DAY, WORK HOURS, SATURDAY, SUNDAY, HOLIDAY AND OVERTIME WORK

Sparks Municipal Code 20.04.005.D restricts construction hours to 7:00 A.M. until 7:00 P.M., Monday through Friday and 9:00 A.M. until 5:00 P.M. on Saturday. For this project, the defined construction hours will be 7:00 A.M until 7:00 P.M., Monday through Friday unless otherwise required by these specifications or requested by the City Project Coordinator. The CONTRACTOR shall not commence Construction operations before seven o'clock (7:00 A.M. Pacific Time) each working day except as directed by the City Project Manager and as specified herein, including startup of equipment.

The CONTRACTOR shall not perform any Contract work on Saturday, Sunday, legal Holidays and outside of the twelve (12) hours available during a regular working day except as directed and approved by the City Project Manager and as specified herein.

When directed to work outside of the legally permitted construction hours defined above, the CONTRACTOR shall first obtain approval from the City Project Coordinator at least seventy-two (72) hours prior to commencing such overtime work. If the CONTRACTOR plans to perform work on Saturday or Sunday, he/she shall obtain approval by the Wednesday prior to work on the Saturday or Sunday for which work is planned. If the CONTRACTOR plans to perform work on a legal Holiday, he/she shall first obtain approval from the City Project Coordinator at least 72 hours in advance.

CONTRACTOR shall obtain approval through the Temporary Use Permit (T.U.P.) and pay a fee of one hundred (\$100.00) dollars to work outside of the above legally permitted construction hours. The request shall include justification of how public safety will be enhanced through working outside of the restricted construction hours. Submittal and payment of fees does not guarantee approval.

The CONTRACTOR shall be charged for all of City of Sparks' employee(s) time spent for overtime, Saturday, Sunday or Holiday work, based on the employee's hourly rate, plus benefits. The CONTRACTOR will be notified of the costs incurred and if the payment is not made, such costs will be deducted from any payment due to the CONTRACTOR. In addition to the charge for the City employee(s) time outside a standard workday,

The City of Sparks recognizes the following legal Holidays:

January 1	New Year's Day
3rd Monday in January	Martin Luther King, Jr. Birthday
3rd Monday in February	President's Day
Last Monday in May	Memorial Day
June 19	Juneteenth
July 4	Independence Day
1st Monday in September	Labor Day
Last Friday in October	Nevada Day
November 11	Veteran's Day
4th Thursday in November	Thanksgiving Day
4th Friday in November	Family Day (day after Thanksgiving)
December 25	Christmas Day

SECTION 20: MATERIAL SUBMITTALS

Submittals required by the Technical Specifications shall be provided at the time of the pre-construction meeting and shall have been performed within the previous 12 months. Two (2) copies of each submittal should be submitted.

SECTION 21: TRAFFIC CONTROL PLANS

All construction traffic control shall conform to the latest editions of either the Nevada Work Zone Traffic Control Handbook or Part VI of the Manual on Uniform Traffic Control Design (MUTCD, latest edition), Sections 624 and 625 of the Nevada Department of Transportation (NDOT) Standard Specifications for Road and Bridge Construction and as directed by the City of Sparks Community Services Department. The speed used to design sign/device spacing and taper/buffer lengths shall be the existing posted speed on the road.

The CONTRACTOR shall designate a Traffic Control Supervisor (TCS), certified by the American Traffic Safety Services Association (ATSSA), who shall be responsible for planning, initiating, installing, and maintaining all traffic control devices, as specified in the MUTCD and these specifications. The designated construction TCS shall be available to be contacted twenty-four (24) hours a day, seven (7) days a week, for the life of this Contract.

The traffic control plan shall be scaled such that all proposed signage and traffic control for all streets at each location can be seen on full size (24" x 36") plan sheet(s). The CONTRACTOR shall submit two (2) copies of proposed traffic control plan to the Project Manager for review and comment five (5) working days prior to the pre-construction meeting. The proposed traffic control plan shall be prepared and signed by a certified TCS, retained by the CONTRACTOR.

The CONTRACTOR's traffic control plan shall include, but not be limited to, the following:

- Proposed construction zone and existing speed limit
- All construction signage
- Location of flaggers
- Types and locations of traffic control devices
- Construction phasing
- Special events accommodations
- Detours

- Accommodations for pedestrian, bicycle, and transit facilities, including school buses and garbage trucks

If, during construction, revisions to the accepted plan is necessary for safety or accommodation to traffic, these changes must be prepared by the ATSSA-certified, Traffic Control Supervisor.

The Project Manager may authorize a suspension of work during unfavorable weather or other conditions beyond the control of the CONTRACTOR. During such a suspension, the CONTRACTOR shall make passable and shall open to two-way traffic to all portions of the project. The maintenance, replacement, or renewal of any work or materials lost or damaged during the period of suspension shall be at the expense of the CONTRACTOR.

During non-working hours, the CONTRACTOR shall make passable and shall open to two-way traffic to all portions of the project.

When the CONTRACTOR's hauling equipment is required to merge with cross traffic and at such other points which may be necessary to maintain safe traffic conditions, flaggers shall be provided to each side of the impairment to stop and direct traffic.

Construction Zone Signs shall be placed on all cross streets where traffic is to be maintained. They shall be placed a sufficient distance from the construction to give motorists adequate warning of the construction. None of the provisions herein shall be construed to restrict or prohibit, at any time, the prosecution of items of work, which will not interfere with the use of existing streets.

For this project, existing roadways will be required to maintain one lane of traffic at all times. Flaggers may be required if Project Manager or the Inspector believes it is needed due to current activity or traffic safety. Failure to comply with Flagger requirements will result in an immediate shut down of all construction activity. Work will resume when the flagger requirement has been satisfied.

SECTION 22: CLEANUP AND DUST CONTROL

It shall be the CONTRACTOR's responsibility to provide cleanup and dust control throughout all phases of construction, including suspension of work, and until final acceptance of the project. The CONTRACTOR shall keep the work site and other adjacent areas clean and free from rubbish and debris. The CONTRACTOR shall also abate dust nuisance by cleaning, sweeping, and sprinkling with water, or other means as necessary. A power broom will not be an acceptable means of cleaning the site unless used in conjunction with water to prevent dust from the power broom operation. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other methods. All water used for dust control must be from a potable water source.

All construction procedures shall conform to WCDHD-AQMD standards.

If excavation is proposed by the CONTRACTOR for pipe repair or replacement, excess excavated material from trenches in public streets shall be removed from the site immediately. At no time will the CONTRACTOR be allowed to store debris or soil materials on the street overnight. All asphalt, concrete, soil and aggregate base shall be hauled off at the conclusion of each working day. Sufficient material may remain for use as backfill, but shall not remain during non-working hours. No screening of excavated material will be allowed in the street. The CONTRACTOR shall remove all trash from the site in a timely manner. At no time shall the CONTRACTOR permit disposal of trash in any excavation.

Staging of equipment and materials along road shoulders is not permitted overnight except as necessary for bypass pumping and its associated traffic controls. CONTRACTOR shall remove all equipment and materials to an approved storage location at the end of each working day. Materials and equipment shall be removed from the site as soon as they are no longer necessary; and, upon completion of the work and before final inspection, the entire worksite shall be cleared of equipment, waste and unused materials, construction debris and rubbish so as to present a satisfactory clean and neat appearance.

Care shall be taken to prevent spillage on haul routes. Any such spillage shall be removed immediately, and the area cleaned.

Failure of the CONTRACTOR to comply with the Agency's cleanup orders may result in an order to suspend work until the condition is corrected. Working days will continue to be counted during the suspension. No additional compensation will be allowed as a result of such suspension. No extension of Contract time will be allowed as a result of such suspension.

If the Contract time expires before final cleanup has been completed, liquidated damages, as specified in the Contract, may be imposed.

SECTION 23: FORCE ACCOUNT

THIS ITEM SHALL BE IDENTIFIED AS A CONTINGENT ITEM. The use of this contingent item will be as directed by the Engineer. The quantity of the above contingent item of work, as set forth on the bid schedule represent no actual estimate, is nominal only and may be greatly increased or decreased or reduced to zero. The increase or reduction of this quantity as compared with that set forth on the bid schedule shall not constitute a basis for claim by the CONTRACTOR for extra payment or damages.

Force Account items as defined by the City of Sparks will be additions to the Contract arising within the course and scope of the Contract for incidental costs due to unforeseen circumstances. Unforeseen circumstances include but are not limited to the following:

Emergency repairs, complications arising with interfacing new improvements to existing improvements, emergency pumping, emergency light/power plants, premium time or overtime to accelerate portions of work, unexpected utility modifications or conflicts, correcting existing substandard work, requested traffic control measures or signage, unknown field conditions, underground storage tanks, asbestos encountered, or any other miscellaneous or incidental items related to unforeseen circumstances.

Any Force Account items shall be adjusted daily upon report sheets, furnished to the City Project Manager by the CONTRACTOR and signed by both parties. These daily reports shall thereafter be considered the true record of Force Account items for unforeseen circumstances. No additional incidental work shall be performed or made except upon a written order from the City Project Manager.

SECTION 24: INSURANCE AND INDEMNIFICATION

The CONTRACTOR shall not commence any work nor permit a Subcontractor to commence work on this project until satisfactory proof has been presented to the City of Sparks Purchasing Division that all insurance requirements as outlined by the City have been met.

The CONTRACTOR shall provide and maintain, during the effective life of the awarded Contract, Comprehensive General Liability Insurance covering the CONTRACTOR and the City of Sparks.

SECTION 25: RECORD DOCUMENTS

The CONTRACTOR shall maintain, in a safe place at the job site, one record copy of the construction drawings in good order and annotated to show all changes made during construction and all existing facilities exposed during construction. These record drawings shall be kept current and made available to the Project Manager and Inspector for reference upon request. CONTRACTOR shall, at the completion of the project, return one completed copy of the record drawings to the City Project Manager. The City will not release CONTRACTOR's retention until the record drawings have been received and reviewed by the City Project Manager.

SECTION 26: GARBAGE PICKUP

This is for recycled materials and garbage. It will be the responsibility of the CONTRACTOR to coordinate with Waste Management and residents to ensure that garbage collection is uninterrupted.

SECTION 27: PROJECT SUPERVISION

The CONTRACTOR will provide a superintendent for this project that is available during working hours. The CONTRACTOR will also provide a foreman for supervision of crews that are currently working on site. A "working foreman" will not be permitted to supervise daily activities, subcontractors will be subject to this rule as well. Supervision of several crews by one foreman will be permitted; the superintendent can also act as the supervision of the crews however the superintendent must remain on the job at all times during working hours.

SECTION 28: SURVEYING AND TESTING

The City will not provide construction surveying for the project.

SECTION 29: LOCATION OF WORK, PUBLIC RELATIONS

It shall be the CONTRACTOR's responsibility to notify, in writing, all residents and businesses adjacent to this project of the construction working hours and duration of work. Notification shall be provided directly to impacted properties (i.e. properties abutting the work) seven (7) calendar days prior to beginning work at that location excepting notification for Monday and Tuesday work shall be provided no later than 7:00 PM Thursday. Notification shall be in the form of a letter and "door hanger" or flyer that is hand-delivered by the CONTRACTOR to each residence/business. Letters shall be in both English and Spanish and will include construction schedule, start and stop times, any weekend work, and contact telephone numbers of project superintendent. The City will provide contact info of the Project Engineer to be included in the notification. A generic copy of the door hanger shall be provided to the Engineer for approval at the Pre-Construction Meeting. In the event of substantial delays or temporary cessation of the work for a period of more than five (5) Contract calendar days, the CONTRACTOR shall again notify affected residents and businesses of the delay and revised work schedule. This notification shall be in the form of a "door hanger" or flyer that is hand-delivered by the CONTRACTOR to each residence/business. A generic copy shall be provided to the Engineer for approval prior to distribution. The CONTRACTOR shall keep a log of all letters, door hangers and person to person contacts including date, address, and the name of the person they spoke with. A copy of the log shall be submitted to the Engineer each week.

Where access to private properties is required to complete the work, the CONTRACTOR and an Owner representative shall notify the affected residence within 72 hours of the need for access, but no later than 24 hours prior to the need for access. Personal contact shall be made to inform the residence to verify they are aware and informed of the work.

In the event of delays that require rescheduling of work, the CONTRACTOR shall re-notify impacted properties in the same manner as described in the paragraphs above.

Special consideration shall be given to schools to accommodate schedules for pedestrians, student drop-off, and buses.

“NO PARKING” signs shall be displayed on streets at least 24 hours prior to operations. Signs shall be legible from inside vehicles and state the day and dates work will be performed. Signs shall be free from defects and unbroken.

SECTION 30: PERMITS

PERMITS AND LICENSES

The CONTRACTOR is responsible for ensuring all subcontractors working on this project hold a current City of Sparks Business License. Unless otherwise noted below, the CONTRACTOR is responsible for obtaining all certificates, licenses, and permits required to perform the work. This includes current state and local business licenses, certificates, licenses and permits for all onsite or offsite vehicles, equipment, processes, and activities associated with the work.

CITY OF SPARKS PERMITS

Encroachment/Excavation Permit – The CONTRACTOR is responsible for securing an encroachment and/or excavation permit from the City of Sparks prior to construction in the City Right-of-Way per Section 12.12 of the Sparks Municipal Code. The CONTRACTOR is responsible for following the conditions of approval listed in the permit. In case of discrepancies between these Contract documents and the permit conditions, these Contract documents shall prevail. Encroachment and/or excavation permit fees from the City of Sparks shall be waived for this project.

**BID ITEM CLARIFICATIONS
FOR
CITY OF SPARKS
SANITARY SEWER CIPP LINING - FISCAL 2024
BID #23/24-011, PWP #WA-2024-164**

GENERAL INFORMATION

Unless indicated otherwise within the specific bid item as described in this section, the Engineer's estimated quantity as contained in the bid schedule shall be the final pay quantity. For bid items measured in linear feet, the quantities are estimated by taking the horizontal projected lengths. For bid items measured in square feet, the quantities are estimated by taking the horizontal projected areas.

The Engineer's estimated quantity, as contained in the bid schedule, is based on the details and dimensions shown on the plans, and no guarantee is made that the quantity, which can be determined by measurements and computations, will equal the estimated quantity. No allowance will be made in the event that the quantity based on measurements and computations does not equal the estimated quantity.

In case of discrepancy between the quantity contained in the bid schedule and the quantity or summation of quantities for the same item shown on the plans, payment will be based on the quantity contained in the bid schedule.

If the quantity of a particular item of work is intentionally increased or decreased during construction, the final pay quantity of that item will be adjusted to reflect the change.

BID ITEM 1: MOBILIZATION/DEMOBILIZATION

No specific unit of measurement shall apply to the lump sum item "Mobilization/Demobilization".

The lump sum bid price for "Mobilization/Demobilization" shall constitute full payment for mobilization and demobilization, complete as specified. The lump sum price for mobilization shall include all costs for obtaining all bonds, permits (including applicable permits with the City of Sparks), and licenses; moving onto and off the site equipment and materials; furnishing and erecting construction trailers and other construction facilities; and all preparatory work as required for the proper performance and completion of the project, including work items not identified in a separate bid item.

Partial payment for mobilization will be 20% for each 10% of project completion thru 50% completion.

BID ITEM 2: TEMPORARY TRAFFIC CONTROL

No specific unit of measurement shall apply to the lump sum item "Temporary Traffic Control".

The lump sum bid price for "Temporary Traffic Control" shall constitute full compensation for all labor, equipment, tools, supplies and materials to complete this item, including, but not limited to, preparation and distribution of plans, notices and reports; setup, removal and maintenance of all barricades, signs (including custom signs), channelizing devices, barrel cones, flag persons, and detours. There shall be no additional payment for changes in the traffic control plan required as a result of changes in the CONTRACTOR's work method or schedule. Payment for traffic control shall be made at the Contract unit price bid per lump sum for entire project.

Partial payment will be made based upon percent completion of the work.

BID ITEM 3: TEMPORARY EROSION CONTROL

No specific unit of measurement shall apply to the lump sum item “Temporary Erosion Control”.

The lump sum bid price for “Temporary Erosion Control” shall constitute full compensation for all labor, equipment, tools, supplies and materials to complete this item, including, but not limited to, installation, maintenance, repair, and removal of erosion and sediment control facilities.

BID ITEM 4: SEWER MAIN 10” CIPP

“Sewer Main 10” CIPP” shall be measured by the linear foot along the existing pipe centerline as measured by the Engineer. Measurement shall be made from inside wall of manhole to inside wall of manhole and does not include the inside dimensions of the existing structures.

The unit price for “Sewer Main 10” CIPP” shall constitute full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved with the installation of 8” CIPP, complete in-place, including: property owner/public notification and coordination; coordination of delivery, inspection, and storage of materials; all equipment, monitoring and permitting required for entry of confined spaces; cleaning and preparation of sewer line following NASSCO’s “Jetter Code of Practice,” including major root removal, debris, and deposit removal; CCTV video to assess pipe conditions pre- and post-CIPP installation and for 11-month warranty inspection; locate existing active laterals to be reinstated; furnish and placement of CIPP liner tube and hydrophilic or grout end seals at each manhole, resin, curing procedure (steam or water), curing log procedures, and manhole protection; material sampling and testing; site and landscape restoration to pre-project conditions, and clean-up as specified herein, and as directed by the Engineer.

If hot water cure is utilized for the CIPP curing process, CONTRACTOR shall collect and dispose of all water to a proper facility at their expense.

BID ITEM 5: SEWER MAIN 8” CIPP

“Sewer Main 8” CIPP” shall be measured by the linear foot along the existing pipe centerline as measured by the Engineer. Measurement shall be made from inside wall of manhole to inside wall of manhole and does not include the inside dimensions of the existing structures.

The unit price for “Sewer Main 8” CIPP” shall constitute full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved with the installation of 8” CIPP, complete in-place, including: property owner/public notification and coordination; coordination of delivery, inspection, and storage of materials; all equipment, monitoring and permitting required for entry of confined spaces; cleaning and preparation of sewer line following NASSCO’s “Jetter Code of Practice,” including major root removal, debris, and deposit removal; CCTV video to assess pipe conditions pre- and post-CIPP installation and for 11-month warranty inspection; locate existing active laterals to be reinstated; furnish and placement of CIPP liner tube and hydrophilic or grout end seals at each manhole, resin, curing procedure (steam or water), curing log procedures, and manhole protection; material sampling and testing; site and landscape restoration to pre-project conditions, and clean-up as specified herein, and as directed by the Engineer.

If hot water cure is utilized for the CIPP curing process, CONTRACTOR shall collect and dispose of all water to a proper facility at their expense.

BID ITEM 6: LATERAL REINSTATEMENT

Measurement for payment for “Lateral Reinstatement” shall be per each.

Payment for “Lateral Reinstatement” shall constitute full compensation for furnishing all labor, materials, tools, equipment and incidentals, for doing all the work involved with Lateral Reinstatement at all active laterals, complete in-place, including: confirmation of lateral size, determination of precise lateral location, verification if active or in-active by methods of push-type camera, dye testing, or tracing from surface, coordination of delivery, inspection, and storage of materials; cutting and brushed edge for reinstating lateral connection to main; CCTV video of locating and reinstating lateral connection; and clean-up as specified herein, and as directed by the Engineer.

BID ITEM 7: SPOT REPAIR WITH 10” SHORT LINER

“Spot Repair with 10” Short Liner” shall be per each at locations where short liners are determined to be necessary.

The unit price for “Spot Repair with 10” Short Liner” shall constitute full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved with the installation of 10” short liner, complete in-place, including: property owner/public notification and coordination; coordination of delivery, inspection, and storage of materials; all equipment, monitoring and permitting required for entry of confined spaces; cleaning and preparation of sewer line following NASSCO’s “Jetter Code of Practice,” including major root removal, debris, and deposit removal; CCTV video to assess pipe conditions pre- and post-CIPP short line installation and for 11-month warranty inspection; locate existing active laterals to be reinstated, if any; furnish and placement of CIPP short liner tube, resin, curing procedure, and manhole protection; material sampling and testing; site and landscape restoration to pre-project conditions, and clean-up as specified herein, and as directed by the Engineer.

BID ITEM 8: SPOT REPAIR WITH 8” SHORT LINER

“Spot Repair with 8” Short Liner” shall be per each at locations where short liners are determined to be necessary.

The unit price for “Spot Repair with 8” Short Liner” shall constitute full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved with the installation of 8” short liner, complete in-place, including: property owner/public notification and coordination; coordination of delivery, inspection, and storage of materials; all equipment, monitoring and permitting required for entry of confined spaces; cleaning and preparation of sewer line following NASSCO’s “Jetter Code of Practice,” including major root removal, debris, and deposit removal; CCTV video to assess pipe conditions pre- and post-CIPP short line installation and for 11-month warranty inspection; locate existing active laterals to be reinstated, if any; furnish and placement of CIPP short liner tube, resin, curing procedure, and manhole protection; material sampling and testing; site and landscape restoration to pre-project conditions, and clean-up as specified herein, and as directed by the Engineer.

BID ITEM 9: SERVICE LATERAL CONNECTION LINER – 8”X4” TOP HAT

Measurement for payment for “Service Lateral Connection Liner – 8”x4” Top Hat” shall be per each at locations where main/lateral connection liners are determined to be necessary.

Payment for “Service Lateral Connection Liner – 8”x4” Top Hat” shall constitute full compensation for furnishing all labor, materials, tools, equipment and incidentals, for doing all the work involved with Service Lateral Connection Liner at active laterals, complete in-place, including: property owner/public notification and coordination; cleaning and preparation of sewer line following NASSCO’s “Jetter Code of Practice,” including major root removal, debris, and deposit removal; CCTV video to assess pipe conditions pre- and post-CIPP lateral seal and for 11-month warranty inspection; confirmation of lateral and main size; determination of precise lateral location; video inspection of each lateral from main assuming no cleanout is available to determine if roots, groundwater, breakage, or other detriment is present within the first two (2) feet of lateral necessitating Service Lateral Connection Liner; coordination of delivery, inspection, and storage of materials; plugging of active lateral; installation of Service Lateral Connection Liner with top hat tee/wye repair kit as noted per Plan; resin impregnated one-piece main and lateral cured-in-place lining for the first six inches, at minimum, of each lateral from the main; and clean-up as specified herein, and as directed by the Engineer.

BID ITEM 10: SERVICE LATERAL CONNECTION LINER – 10”X4” 360°-MAIN LATERAL SEAL

Measurement for payment for “Service Lateral Connection Liner – 10”x4” 360°-Main Lateral Seal” shall be per each at locations where main/lateral connection liners are determined to be necessary.

Payment for “Service Lateral Connection Liner – 10”x4” 360°-Main Lateral Seal” shall constitute full compensation for furnishing all labor, materials, tools, equipment and incidentals, for doing all the work involved with Service Lateral Connection Liner at active laterals, complete in-place, including: property owner/public notification and coordination; cleaning and preparation of sewer line following NASSCO’s “Jetter Code of Practice,” including major root removal, debris, and deposit removal; CCTV video to assess pipe conditions pre- and post-CIPP lateral seal and for 11-month warranty inspection; confirmation of lateral and main size; determination of precise lateral location; video inspection of each lateral from main assuming no cleanout is available to determine if roots, groundwater, breakage, or other detriment is present within the first two (2) feet of lateral necessitating Service Lateral Connection Liner; coordination of delivery, inspection, and storage of materials; plugging of active lateral; installation of Service Lateral Connection Liner with 360°-main tee/wye repair kit as noted per Plan; resin impregnated one-piece main and lateral cured-in-place lining for the first six inches, at minimum, of each lateral from the main; and clean-up as specified herein, and as directed by the Engineer.

BID ITEM 11: SERVICE LATERAL CONNECTION LINER – 8”X4” 360°-MAIN LATERAL SEAL

Measurement for payment for “Service Lateral Connection Liner – 8”x4” 360°-Main Lateral Seal” shall be per each at locations where main/lateral connection liners are determined to be necessary.

Payment for “Service Lateral Connection Liner – 8”x4” 360°-Main Lateral Seal” shall constitute full compensation for furnishing all labor, materials, tools, equipment and incidentals, for doing all the work involved with Service Lateral Connection Liner at active laterals, complete in-place, including: property owner/public notification and coordination; cleaning and preparation of sewer line following NASSCO’s “Jetter Code of Practice,” including major root removal, debris, and deposit removal; CCTV video to assess

pipe conditions pre- and post-CIPP lateral seal and for 11-month warranty inspection; confirmation of lateral and main size; determination of precise lateral location; video inspection of each lateral from main assuming no cleanout is available to determine if roots, groundwater, breakage, or other detriment is present within the first two (2) feet of lateral necessitating Service Lateral Connection Liner; coordination of delivery, inspection, and storage of materials; plugging of active lateral; installation of Service Lateral Connection Liner with 360°-main tee/wye repair kit as noted per Plan; resin impregnated one-piece main and lateral cured-in-place lining for the first six inches, at minimum, of each lateral from the main; and clean-up as specified herein, and as directed by the Engineer.

BID ITEM 12: INTERNAL POINT REPAIR – GRIND PROTRUDING LATERAL OR OBSTRUCTION (CONTINGENT ITEM)

Measurement for payment for “Internal Point Repair – Grind Protruding Lateral or Obstruction” shall be per each.

Payment for “Internal Point Repair – Grind Protruding Lateral or Obstruction” shall constitute full compensation for furnishing all labor, materials, tools, equipment, and incidentals to complete a point repair of existing pipe. It shall include identification and location of areas requiring repair; coordination of delivery, inspection, and storage of materials; grind the lateral, breakage, or other protrusion, including intruding joint seal, from inside the existing pipe; clean-up as specified herein, and as directed by the Engineer.

The quantity of this contingent item of work, as set forth in the "Bid Item Schedule", represents no actual estimate, is nominal only, and may be greatly increased, decreased or reduced to zero. The increase or reduction of this quantity shall not constitute a basis for claim by the CONTRACTOR for extra payment or damages.

BID ITEM 13: CHEMICAL GROUT INSTALLATION (CONTINGENT ITEM)

Measurement for payment for “Chemical Grout Installation” shall be per each.

The bid unit price paid for “Chemical Grout Installation” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, for doing all the work involved in Chemical Grout Installation complete in-place, including: property owner/public notification and coordination of delivery, inspection, and storage of materials; temporary bypassing of main and/or lateral; plugging of main and/or laterals during installation; accessing lateral through existing main; installation of chemical grout; and clean-up as specified herein, and as directed by the Engineer.

The quantity of this contingent item of work, as set forth in the "Bid Item Schedule", represents no actual estimate, is nominal only, and may be greatly increased, decreased or reduced to zero. The increase or reduction of this quantity shall not constitute a basis for claim by the CONTRACTOR for extra payment or damages.

BID ITEM 14: BYPASS PUMPING

No specific unit of measurement shall apply to the lump sum item “Bypass Pumping”.

Payment for “Bypass Pumping” shall constitute full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install and maintain bypass pumping of mains and laterals, including plugs, pumps, hoses, air release valves and fittings, fuel and fuel tanks, float switch and battery-operated high-

level alarm with notification to cell phones and warning lights and other equipment required for bypassing of sewage flows; protection of bypass equipment from pedestrian and vehicular traffic, including temporary ramps; excavation, backfill and temporary paving, if required; bypass system leak testing prior to bypassing sewage; standby pump fueled and operational; protection against air valve leakage with 24-hour monitoring 7 days per week, bypass flushing with potable water or effluent reuse water prior to removal; and containment protection for spills of gasoline, oil, and hydraulic fluid as required and specified herein, or as directed by the Engineer.

Payment is on a lump sum basis. Partial payment for bypass pumping will be 20% upon mobilization and shall match the percentage of total project completion after the first 20%.

BID ITEM 15: FORCE ACCOUNT

This item is a force account for the purpose of including a reasonably anticipated net increase in the contract amount, approved as necessary by the City of Sparks, for items included in the bid schedule which have increased based on field measured quantities.

The lump sum unit price bid amount of **\$60,000.00** for bid item 15 shall be the same for all bidders in accordance with the bid schedule.

There is no direct payment for this item. The FORCE ACCOUNT amount may be used entirely, partially, or not at all.

**TECHNICAL SPECIFICATIONS
FOR
CITY OF SPARKS
SANITARY SEWER CIPP LINING - FISCAL 2024
BID #23/24-011, PWP #WA-2024-164**

Unless otherwise amended by these Technical Specifications, all materials, construction methods, etc. shall follow the “Standard Specifications for Public Works Construction” (Orange Book), 2012 Edition

TECHNICAL SPECIFICATIONS INCLUDED IN THIS SECTION:

SECTION 306A – BYPASS PUMPING

SECTION 306B – SEWER LINE CLEANING

SECTION 306C – VIDEO INSPECTION OF SEWER PIPELINES

SECTION 306D – CHEMICAL GROUTING

SECTION 306E – CURED-IN-PLACE PIPE LINING

SECTION 306A – BYPASS PUMPING

1.0 THE BYPASS PUMPING SYSTEM DESIGN CRITERIA

1. Discharge manifolds are acceptable
2. Intake manifolds are not acceptable
3. Use separate intakes for each pump with debris control
4. Aluminum pipe is unacceptable
5. Suction lines shall be steel-reinforced pipe or better
6. Provide adequate intake line spacing (center to center) to avoid vortexing
7. Provide complete startup to shutdown full time monitoring of the pipeline and pumping installation
8. Provide a float switch, battery-operated high-level alarm with notification to cell phones and warning light
9. Provide redundant air release valves
10. Provide multiple fuel tanks with 24 hours of fuel supply
11. Provide standby pump, fueled and operational
12. Protect discharge piping from vandalism and vehicular damage
13. Odor control will be as required

2.0 BYPASS PUMPING REQUIREMENTS

Bypass sizing and routing shall be the responsibility of the CONTRACTOR.

The bypass pumping system criteria has been identified for this project and is described below. The pipes to be lined are estimated to be below the maximum flow threshold for Criterion 1 noted below. If the CONTRACTOR determines that Criterion 1 is not sufficient to provide adequate bypass pumping, he shall notify the Engineer and Owner immediately upon his determination.

Criterion 1 Bypass Pumping System with flows equal to or less than 2.5 MGD (1735 GPM)

CONTRACTOR shall maintain on site, the following minimum requirements for all bypass pumping systems:

1. Sufficient equipment and materials to ensure continuous and successful operation of the bypass and dewatering systems. The COMPLETE bypass system, including all piping, shall be continuously monitored by CONTRACTOR personnel.
2. A system of pumps and piping operating onsite to maintain a minimum 50% over capacity of the anticipated maximum flow (as determined by the CONTRACTOR). In addition, the CONTRACTOR shall have a standby pump, equal in capacity to the largest pump in the system, piped, plumbed and ready for operation. Standby pumps shall be fueled and operational at all times.
3. The CONTRACTOR shall maintain on site a sufficient number of valves, tees, elbows, connections, tools, sewer plugs, piping, hoses and other parts of system hardware to ensure immediate repair or modification of any part of the system as necessary.

In areas where bypass piping crosses major streets, pipe must be laid in trench and backfilled with temporary trench patch. Ramps shall only be installed in locations approved by Engineer.

CONTRACTOR shall have the entire bypassing system in place at each construction location and successfully tested for leaks before bypassing any sewage.

Prior to any breaking down of bypass ramps and/or hard piping, CONTRACTOR shall flush with potable water from an approved source. Once flushed, hard piping shall be pigged using air to remove water.

The CONTRACTOR shall notify the Engineer 48 hours prior to commencing or shutting down any bypassing pumping operations.

CONTRACTOR shall repair, without cost to the City and/or private property owner, any damage that may result from their negligence, inadequate or improper installation, maintenance and operation of bypassing system, including mechanical or electrical failures. CONTRACTOR shall be responsible for immediate and proper cleanup should any spill occur, regardless of amount.

Engines shall be equipped with mufflers and/or plywood/Styrofoam noise panels enclosing the engines to keep the noise level within limits specified in local codes and ordinances.

All contacts between City's Maintenance Personnel and the CONTRACTOR on any sanitary sewer/storm drain matters shall be directed through the City's Project Manager.

3.0 SUBMITTALS

The CONTRACTOR shall submit, in accordance with Section 20 of these Special Provisions, SSPWC, plans and complete design data showing methods and equipment proposed to be utilized in sewer bypassing for approval at the Pre-Construction Meeting. The submittal shall include the following information:

1. Written documentation indicating the scheme including location of pumps, temporary sewer plugs, bypass discharge lines, ramps, and lighting for ramps. The Submittal shall describe the method and location for draining the bypass pipelines upon completion of the work.
2. Capacities of pumps, prime movers, and standby equipment.
3. Design calculations proving adequacy of the system and selected equipment.
4. Standby power source.
5. Staffing plan.
6. Show suction and discharge points with elevations & stationing on the Contract Plans.
7. Provide pump performance curves.
8. Submit calculations to verify suction lift of pumps has not been exceeded.
9. CONTRACTOR shall submit proposed noise control and exhaust control plans for pumping equipment.
10. CONTRACTOR shall submit a proposed plan for disruption of sewer service laterals.

The actual design of the bypass arrangement shall be prepared by the CONTRACTOR or Subcontractor performing the work, and shall be submitted to the Engineer to determine conformance to project objectives. The CONTRACTOR shall be responsible for any Subcontractors design (if used) on this project. Means and methods of accomplishing the bypassing shall be the responsibility of the CONTRACTOR.

Approval of submitted plans for sewer connection and temporary rerouting shall in no way relieve the CONTRACTOR of their responsibility for the protection of adjacent properties, downstream drainage systems and water tributaries against sewage spill. Any litigation, claims, fines, etc. associated with any sewage spill shall be the responsibility of the CONTRACTOR.

4.0 PROTECTION

All bypass flows shall be discharged as approved by the Engineer. No bypassing to the ground surface, receiving waters, storm drains, or bypassing which results in soil or groundwater contamination or any potential health hazards shall be permitted.

All pumps, generators, and other equipment shall be placed on new plastic tarps to protect against gasoline, oil, and hydraulic fluid spills. Spills and leaks shall be cleaned up immediately.

5.0 SCHEDULING

The bypassing system shall not be shut down between shifts, on holidays or weekends, or during work stoppages without written permission from the Engineer. **CONTRACTOR or Subcontractor responsible for bypass pumping shall have a representative on site to maintain and monitor the bypass pumping system until the bypassing of that specific pipeline is no longer required.**

6.0 FLOW CONDITIONS

The CONTRACTOR is responsible for obtaining current flow condition information at the time of construction. The City is not responsible for any deviations in quantity of sewage flow at any time during the construction period. Higher flows may be encountered depending on weather and other upstream conditions.

****END OF SECTION****

SECTION 306B - SEWER LINE CLEANING

1.0 GENERAL

1.1 SCOPE

- A. The intent of sewer line cleaning is to remove foreign materials from the lines and is performed immediately before the CIPP process. Since the success of the other phases of work depends a great deal on the cleanliness of the lines, the importance of this phase of the operation is emphasized. It is recognized that there may be some conditions such as broken pipe and major blockages that may prevent cleaning from being accomplished or where additional damage would result if cleaning were attempted or continued. Should such conditions be encountered, the CONTRACTOR will not be required to clean those specific sections, but shall notify the Engineer in writing of the reason cleaning cannot be accomplished. If in the course of normal cleaning operations, damage does result from preexisting and unforeseen conditions such as broken pipe, the CONTRACTOR will not be held responsible.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 306A – Bypass Pumping
- B. Section 306C – Video Inspection of Sewer Pipelines
- B. Section 306D – Chemical Grouting
- C. Section 306E – Cured-in-Place Pipe Lining

1.3 SUBMITTALS

- A. Submittals shall be in accordance with Section 20 of these Special Provisions.

2.0 MATERIALS

2.1 CLEANING EQUIPMENT

- A. Hydraulically Propelled Equipment:
 1. The equipment used shall be of a movable dam type and be constructed in such a way that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the sewer. The movable dam shall be equal in diameter to the pipe being cleaned and shall provide a flexible scraper around the outer periphery to insure removal of grease.
 2. If sewer cleaning balls or other equipment which cannot be collapsed are used, special precautions to prevent flooding of the sewers and public or private property shall be taken and presented to the Engineer for approval.
- B. High-Velocity Jet (Hydro-cleaning) Equipment:
 1. All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more high-velocity nozzles. The nozzles shall be capable of producing a scouring action from 15 to 45 degrees in all size lines designated to be cleaned.
 2. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floors. The gun shall be capable of producing flows from a fine spray to a solid stream.

3. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel. The NASSCO “Jetter Code of Practice” shall be consulted as a guide for the selection of different type nozzles and recommended pressure applications for various cleaning requirements.
- C. Mechanically Powered Equipment:
1. Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed.
 2. A power rodding machine shall be either a sectional or continuous rod type capable of holding a minimum of 750 feet of rod. The rod shall be specifically heat-treated steel. To ensure safe operation, the machine shall be fully enclosed and have an automatic safety clutch or relief valve.
- D. Large Diameter Cleaning:
1. For cleaning large diameter sewer, storm or combination pipes, consideration should be given to a combination hydraulic high volume water and solids separation system. The flow from the sewer will provide water for the pump operation so no potable water is necessary and treatment costs are not a factor.
 2. Water volume of up to 250 GPM at 2000 PSI+ will move solids to the downstream manhole in high flow conditions. The separation system will dewater solids to 95% (passing a paint filter test) and transfer them to a dump truck for transport to a sewage treatment plant or approved landfill. Sewer water will be filtered to a point where it can be used in the pump for continuous cleaning.
 3. No by-passing of sewer flows will be necessary. The unit shall be capable of 24-hour operation and the unit shall not leave the manhole until a section is fully cleaned.
- E. Vacuum System: A minimum 6-inch suction line equipped with fluidizing nozzle capable of removing material from beneath water surfaces at depths from the ground surface to the sewer invert of at least 35 feet.

2.2 ROOT REMOVAL EQUIPMENT

- A. Use tools and accessories designed for removing roots, such as hydraulic root cutters, porcupines, or high-velocity hydro cleaners.

3.0 EXECUTION

3.1 CLEANING WATER

- A. Water for cleaning may be obtained from the Truckee Meadows Water Authority (TMWA) Construction Water Fill Site. The nearest fill stand is likely to be near the corner of Victorian and McCarran. The CONTRACTOR shall apply for water through TMWA and pay all related fees at no cost to the Owner.

3.2 CLEANING PRECAUTIONS

- A. During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools or tools which retard the flow in the sewer line are used, precautions shall be taken to ensure that the water pressure created does not damage or cause flooding of public or private property being served by

the sewer. When possible, the flow of sewage in the sewer shall be utilized to provide the necessary pressure for hydraulic cleaning devices.

3.3 SEWER CLEANING

- A. The designated sewer manhole sections shall be cleaned using hydraulically propelled, high-velocity jet, or mechanically powered equipment. Selection of the equipment used shall be based on the conditions of lines at the time the work commences.
- B. The equipment and methods selected shall be satisfactory to the Owner's Representative. The equipment shall be capable of removing dirt, grease, rocks, sand, and other materials and obstructions from the sewer lines and manholes.
- C. If cleaning of an entire section cannot be successfully performed from one manhole, the equipment shall be set up on the other manhole and cleaning again attempted. If, again, successful cleaning cannot be performed or the equipment fails to traverse the entire manhole section, it will be assumed that a major blockage exists and the Engineer shall be notified.
- D. If using high velocity hydro-cleaning equipment, make a minimum of two passes through the pipe segment.
- E. Begin cleaning at upstream end of the system and proceed in downstream direction.
- F. Remove debris at downstream manhole of pipe segment being cleaned with vacuum system.

3.4 ROOT REMOVAL

- A. Intruding roots shall be removed from pipe. Special attention should be used during the cleaning operation to assure complete removal of roots from the joints. Procedures may include the use of mechanical equipment such as rodding machines, bucket machines and winches using root cutters and porcupines, and equipment such as high-velocity jet cleaners. Chemical root treatment may be used if approved by the Engineer.

3.5 CHEMICAL ROOT TREATMENT

- A. To aid in the removal of roots and at the option of the CONTRACTOR, manhole sections that have root intrusion may be treated with RootX Commercial Grade Root Killer, or an approved equal herbicide by Engineer. CONTRACTOR shall submit to the Engineer the material product sheet for the root killer prior to installation. The application of the herbicide to the roots shall be done in accordance with the manufacturer's recommendations and specifications in such a manner to preclude damage to surrounding vegetation. Any damaged vegetation so designated by the Engineer shall be replaced by the CONTRACTOR at no additional cost to the Owner. All safety precautions as recommended by the manufacturer shall be adhered to concerning handling and application of the herbicide.

3.6 MATERIAL REMOVAL AND DISPOSAL

- A. Sludge, dirt, sand, rocks, grease, and other solid or semisolid material resulting from cleaning operation shall be removed at adjoining downstream manhole. Passing material to downstream pipe will not be permitted.
- B. Solids or semisolids resulting from cleaning operations shall be removed from site and disposed of in accordance with provisions of local, state, and federal requirements at the CONTRACTOR's expense.

3.7 VERIFICATION OF CLEANING AND ROOT REMOVAL

- A. Inspect cleaned pipe segment by video inspection to verify results of cleaning and root removal effort. Reclean and remove roots in pipe segment if Engineer or Owner determines section has not been adequately cleaned or roots properly removed.

****END OF SECTION****

SECTION 306C –VIDEO INSPECTION OF SEWER PIPELINES

1.0 GENERAL

1.1 SCOPE

- A. CONTRACTOR shall inspect all sewer lines via video which are designated for rehabilitation from chemical grouting, CIPP lining, or CIPP lateral lining.
- B. Video inspection to include all inspections necessary to check initial pipe condition, identify active laterals, perform necessary work tasks, check that work elements were completed correctly, clean up, and return the system back to normal operation.
- C. CONTRACTOR is responsible for sequencing video inspection for all work elements including pipe cleaning in the most efficient manner possible.

1.2 RELATED SECTIONS

- A. Section 306B – Sewer Line Cleaning
- B. Section 306D – Chemical Grouting
- C. Section 306E – Cured-in-Place Pipe Lining

1.3 REFERENCES

- A. Electronics Industries Association (EIA).
- B. National Association of Sewer Service Companies (NASSCO).
- C. NASSCO’s Pipeline Assessment and Certification Program (PACP).

1.4 SUBMITTALS

- A. Submit completed DVD (or external flash drive), identified by disc number, project name, street name, and right-of-way property name.
 - 1. Pipe segments and manhole numbers shall conform to the Owner’s asset naming convention.
- B. DVD becomes property of Owner.
- C. Submit cleaning and television inspection logs for each section of sewer line to be rehabilitated and three copies of color videotapes for work performed. Include the following minimum information: stationing and location of lateral services, identify lateral services as active or in-active, wyes or tees, clock references, pipe joints, infiltration/inflow defects, cracks, leaks offset joints, and other information required to assess condition of sewer.
- D. Submit results database in .xlsx (Microsoft Excel) format. Information shall include the following minimum information: setup, date, street, start MH, finish MH, direction, pipe diameter, pipe segment, length, structural quick rating, O&M quick rating, and any comments.
- E. Method for identifying laterals as active or in-active.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with local agency having jurisdiction.

- B. The television camera used for the inspection shall be one specifically designed and constructed for such inspection. User cameras with video output capable of producing minimum of 600 lines of horizontal resolution at center; optimum imagery with minimum illumination (suitable to allow a clear picture of the entire periphery of the pipe); and meet requirements of EIA Stand Video Signal.

1.6 QUALIFICATIONS

- A. Company specializing in performing work of this section with minimum three years documented and continuous experience.

2.0 MATERIALS

2.1 DIGITAL FILE

- A. Digital file shall include audio track containing simultaneously recorded narrative commentary and evaluations of operator describing in detail condition of pipeline interior.
- B. Provide on external flash drive or DVD.

3.0 EXECUTION

3.1 PREPARATION

- A. Flush and clean pipeline interiors to remove sludge, dirt, sand, stone, grease, and other materials from pipe to ensure clear view of interior conditions. Refer to Section 306B.
- B. Intercept flushed debris at next downstream manhole by use of weir or screening device; remove and dispose of debris off site. Refer to Section 306B.
- C. Furnish materials, labor, equipment, power, and maintenance to implement a temporary bypass pumping system around work area for time required to complete TV inspection.

3.2 APPLICATION

- A. Utilize cameras specifically designed and constructed for closed-circuit television (CCTV) sewer line inspection. Utilize camera equipment with pan and tilt capability or a panoramic head to view each lateral connection at multiple angles.
- B. Service laterals shall be visually inspected from the main for a minimum distance of 40 feet unless that distance is prohibited by a blockage. A primary objective of this inspection is to determine if laterals are abandoned or capped and should not be reinstated. If unsure, CONTRACTOR shall confirm if a lateral is active by methods of push-type camera with video tape inspection capability, dye testing, or trace from surface.
- C. Utilize camera capable of moving upstream and downstream; minimum 1,000 feet horizontal distance with one setup; direct reading cable position meter.
- D. The camera television monitor, and other components of the video system, shall be capable of producing picture quality to the satisfaction of the Owner's Representative; and if unsatisfactory, equipment shall be removed and no payment will be made for an unsatisfactory inspection.
- E. The camera shall be moved through the line in either direction at a moderate rate, stopping when necessary to permit proper documentation of the sewer's condition. In no case will the television camera be pulled at a speed greater than the manufacturer recommendation for optimal video. Manual winches, power winches, TV cable, and powered rewinds or

other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line. If, during the inspection operation, the television camera will not pass through the entire manhole section, the CONTRACTOR shall set up his equipment so that the inspection can be performed from the opposite manhole. If, again, the camera fails to pass through the entire manhole section, CONTRACTOR shall notify Owner and Engineer and work with them to develop a plan to proceed.

- F. When manually operated winches are used to pull the television camera through the line, telephones or other suitable means of communication shall be set up between the two manholes of the section being inspected to insure good communications between members of the crew.
- G. The importance of accurate distance measurements is emphasized. Measurement for location of defects shall be above ground by means of a meter device. Marking on the cable, or the like, which would require interpolation for depth of manhole, will not be allowed. Accuracy of the distance meter shall be checked by use of a walking meter, roll-a-tape, or other suitable device, and the accuracy shall be satisfactory to the Owner's Representative.

3.3 FIELD QUALITY CONTROL

Pipeline Inspection

- A. Television Inspection Logs: Electronic media location records shall be kept by the CONTRACTOR and will clearly show the location, by distance in 1/10 of a foot from the manhole wall, in relation to an adjacent manhole of each infiltration point observed during inspection. In addition, other points of significance such as locations of building sewers, unusual conditions (flat grades, dips, deflection joints, open joints), roots, storm sewer connections, fractures, broken pipe, presence of scale and corrosion, and other discernible features.
- B. Digital photographs of the pipe condition and all defects shall be taken by the CONTRACTOR. Photographs shall be located by distance in 1/10 of a foot, from the manhole wall, in relation to an adjacent manhole.
- C. Electronic media recordings: The purpose of electronic media recording shall be to supply a visual and audio record of problem areas of the lines that may be replayed by the Owner. Each original electronic media recording of conditions and defects will be delivered to the Customer upon completion of a specific line section.
- D. Video with pipe section plugged as to view 100 percent inside pipe diameter; use flow control methods as specified for bypass pumping system to eliminate surcharging and reduce flow.

****END OF SECTION****

SECTION 306D – CHEMICAL GROUTING

1.0 GENERAL

1.1 SCOPE

- A. Provide all labor, materials, tools, equipment, and incidentals as shown, specified, and required to grout lateral connections to mains, and to seal mains and laterals using the packer injection method.
 - 1. Packer injection grouting is used to reduce the infiltration within the pipeline and seal annular space between liners and host pipes at lateral connections.
 - 2. Packer injection grouting shall be accomplished by pressure injection of chemical grout into the soils encompassing the exterior of pipe joint or point of repair. Chemical grouts shall be designed to be injected into the soil surrounding the pipe, which stabilizes the soil and forms a permanent impermeable seal called a grout/soil ring, and into the annular space between liners and host pipes. Adequate volumes of grout must be injected to form an effective seal. Adequate amounts of grout are based generally upon pipe size and field conditions. This application will be through structurally sound joints and lateral connections through penetrations from within the pipe by using the packer method in tandem with a video inspection system.

1.2 RELATED SECTIONS

- A. Section 306B – Sewer Line Cleaning
- B. Section 306C – Video Inspection of Sewer Pipelines
- C. Section 306E – Cured-In-Place Pipe Lining

1.3 REFERENCES

- A. National Association of Sewer Service Companies (NASSCO) prepared Pipeline Assessment and Certification Program (PACP), TV inspection form and sewer condition codes
- B. ASTM F2304 Standard Practice for Rehabilitation of Sewers using Chemical Grouting (latest revision)
- C. ASTM F2454 Standard Practice for Sealing Lateral Connections and lines from the Mainline Sewer Systems by Lateral Packer Method, Using Chemical Grouting (latest revision)

1.4 SUBMITTALS

- A. Submittals are to be in accordance with Section 20 of these Special Provisions.
- B. The CONTRACTOR shall provide a minimum 48-hour advance written notice of proposed work schedules and procedures for review and concurrence of the Engineer.
- C. Equipment operating procedures and systems.
- D. Chemical Grout information:
 - 1. Description of chemical grout materials to be used per Section 2.2.

2. Description of proposed additives to be used per Section 2.2.
 3. Manufacturer's recommended procedures for storing, mixing, testing and handling of chemical grouts.
 4. SDS for all materials to be used.
- E. Identify the manufacturer & model of the packers to be utilized on the project.
- F. Upon completion of each grout installation, submit to Engineer a report showing the following data:
1. Identification of the sewer pipe section tested by Owner's asset naming convention and length.
 2. Type of pipe material, diameter & depth of pipe to the surface at manholes.
 3. Volume of grout material used on each joint or connection.
 4. Gel set time used (cup test results from tanks).
 5. Grout mix record of the batches mixed including amount of grout and catalyst, additives, temperature of the grout solution in tanks.
 6. Operator conducting testing and sealing shall be noted on the reports.
 7. Video recordings
 - a. Video recording shall include testing and sealing operations for each joint/lateral (including inflation and deflation over the joint/lateral) displaying the final air test of joints or laterals.
 - b. Additional final recording, if specified, shall include inspection of the pipe or lateral after all grouting work is complete.

1.5 QUALIFICATIONS

- A. CONTRACTOR shall have a minimum of three (3) years of experience installing chemical grout. The CONTRACTOR shall submit a minimum of four (4) similar projects with references for work previously performed.

1.6 REQUIREMENTS

- A. Contract requires work in active sewers. CONTRACTOR shall follow all federal, state and local requirements for safety in confined spaces and uniform traffic controls.
- B. Additional safety considerations including safely handling, mixing, and transporting of chemical grouts should be provided by the grout manufacturer/supplier, and should include safe operating practices and procedures, appropriate personal protective equipment (PPE) for the various grouting operations, and proper storage.
- C. Require completion of grout handling and mixing training certification from the grout manufacturer/supplier for CONTRACTOR working with chemical grouts and additives.

2.0 PRODUCTS

2.1 EQUIPMENT

- A. The basic grout installation equipment shall consist of a remotely operated color television camera capable of pan and tilt, packer, and monitoring equipment. The equipment shall be constructed in such a way as to provide means for introducing grout into the void area

created by the expanded ends of the packer against the host pipe and a means for continuously measuring, viewing and recording the installation. The packer shall be of a size less than the diameter of the host pipe, with the cables at either end used to pull it through the line and may be constructed in such a manner as to allow a restricted amount of sewage to flow at all times. Packer shall be expanded by air pressure. Packers shall be of low void space construction with void volume given by the packer manufacturer.

- B. The device for grouting lateral connections shall consist of inflatable mainline end elements and a lateral grouting plug that creates a void area extending beyond the main connection. Whenever possible, use a lateral grouting plug sized to match the diameter of the lateral being grouted with an effective sealing length of at least 6 feet. Where the lateral is capped, utilize alternate lateral grouting plug or equipment sized appropriately for the capped lateral.
- C. If the lateral contains a transition, CONTRACTOR may change out diameters of push packer or grout lateral using only a 4-inch push packer.
- D. Grouting equipment shall consist of the packer, appropriate pumping and hosing systems capable of supplying an uninterrupted flow of sealing materials to completely fill the voids. Grout pumping system shall be sized to deliver a mixed volume of grout at a minimum of 3 gpm and 30 gallons of uninterrupted flow within 10 minutes, or per requirements of grout and pump manufactures.
- E. Volume of mixed grout pumped must be capable of being measured and recorded for each grouted connection. Generally, the equipment shall be capable of performing the specified operations in sewers where flows do not exceed 25 percent of pipe diameter unless permitted by Engineer.
- F. Connection and lateral service sealing shall be accomplished using the lateral grouting plugs and push packers specified above. Provide back-up bladders for each packer on-site at all times during grouting procedures.
- G. Equipment for cleaning lateral blockages shall be readily available while any lateral grouting work is being performed.

2.2 CHEMICAL GROUT

- A. All grout materials must have the following characteristics:
 - 1. While being injected, the grout must be able to react/perform in the presence of water (groundwater).
 - 2. The ability to increase grout mix viscosity, density and gel strength by increased concentration of constituents or the use of approved additives.
 - 3. The cured grout must withstand submergence in water without degradation.
 - 4. The resultant grout formation must be homogeneous and prevent the passage of water (infiltration) through the pipe joint.
 - 5. The grout must not be biodegradable.
 - 6. The cured grout should be chemically stable and resistant to organics found in sewage.
 - 7. Residual grout shall be easily removable from the sewer line to prevent blockage of the sewage flow.

- B. Handle, mix, and store grout in accordance with the manufacturer's recommendations. The materials shall be delivered to the site in unopened original manufacturer's containers.
- C. Water based chemical grouts shall have the following characteristics:
1. A minimum of 10% acrylamide base material by weight in the total grout mix. A higher concentration of acrylamide base material is recommended to increase strength or offset dilution during injection.
 2. The ability to tolerate some dilution and react in moving water during injection.
 3. A viscosity of approximately 2 centipoise, which can be increased with approved additives.
 4. A controllable reaction time from 10 seconds to 1 hour.
 5. A reaction (curing) that produces a homogenous, chemically stable, non-biodegradable, firm, flexible gel.
 6. The ability to increase mix viscosity, density and gel strength by increased concentrations of the mix constituents or by the use of approved additives.
 7. Product Manufacturer: Avanti AV-100, Avanti AV-118; or equal.
- D. Acrylate base grout shall have the following characteristics:
1. A minimum of 10% acrylate base material by weight in the total grout mix.
 2. The ability to tolerate some dilution and react in moving water during injection.
 3. A viscosity of approximately 1-3 centipoise, which can be increased with approved additives.
 4. A controllable reaction time from 10 seconds to 1 hour.
 5. A reaction (curing) that produces a homogenous, chemically stable, non-biodegradable, firm, flexible gel.
 6. The ability to increase mix viscosity, density and gel strength by the use of approved additives.
 7. Product Manufacturer: DeNeef AC-400, DeNeef Gelacryl SR, Avanti AV-160; or equal.
- E. At the CONTRACTOR's discretion and according to field conditions, additives may be selected and used within the manufacturers recommended quantities.
- F. Root Inhibitor
1. When roots are present, a root deterrent chemical shall be added to control root re-growth. The quantity of inhibitor shall be as recommended by the manufacturer and approved by Engineer.
 2. Product Manufacturer: Avanti AC-50W; or equal.
- G. Dye - A manufacturer approved water soluble dye without trace metals may be added to the grout tank(s) for visual confirmation.
- H. Gel Time Modifier - A gel time extending agent may be used in accordance with the manufacturer's recommendations to extend gel time as necessary.

- I. Freeze/Thaw - In those lines where the grouting material may be exposed to a freeze-thaw cycle, ethylene glycol or approved equal additive by Engineer shall be used to prevent chemical grout cracking once set.
- J. When using non-soluble additive, the grout tanks must have mechanical mixing devices to keep the additives in suspension and maintain a uniform solution of grout and additive.

3.0 EXECUTION

3.1 GROUTING GENERAL

- A. Grout lateral connections designated by the Engineer based on CCTV inspection pre-CIPP. This shall be accomplished by forcing grout through a system of pumps and hoses into and through the joints of the sewer from the packer within the sewer pipe. Remove excess grout from pipe and laterals. Excess grout shall be defined as a thickness of grout that given its location, size and geometry, could cause a blockage. Flush or push forward to the next downstream manhole, remove from the sewer system, and properly dispose of excess grout.

3.2 CONTROL TESTS

- A. Pump Tests - At the beginning of the Contract, prior to application of grout, perform a pump test to determine if proper ratios are being pumped from the grout component tanks at the proper rates and to measure pump rates. Use separate containers to capture the discharges from each of the grout component hoses, to simulate the actual volumes of each component through the interconnect hoses, hose reel and length of grout hose and confirm accuracy of grout pump totalizer. Take corrective action if ratios or rates are not within manufacturer's recommended standards.
- B. Grout Tests - Perform and record a grout gel test in the presence of the Engineer by recording the grout tank solution temperature, catalyst tank solution temperature, ambient air temperature in truck, and gel time of the sample whenever the following conditions occur:
 - 1. At the beginning of each day; the material in the hoses shall be recycled to the tanks and a sample shall be taken.
 - 2. When new batches of grout are mixed.
 - 3. Whenever the temperature in the tanks or ambient temperature have changed by more than +/- 10°F from the previous gel test.

3.3 PIPE PREPARATION

- A. Prior to the application of the chemical grouting materials, the CONTRACTOR shall thoroughly clean the sewer designated to receive the chemical grouting per Section 306B – Sewer Line Cleaning. Cleaning shall constitute removal of all loose debris & solids which inhibit proper seating of the packer.
- B. Remove all roots and loose debris from laterals connected to manholes for the length of lateral to be tested/grouted.

3.4 GROUT PREPARATION

- A. Follow the manufacturer's recommendations for the mixing and safety procedures.
- B. Adjust gel time as necessary to compensate for changes in temperature in grout component tanks or hoses. The addition of dilution water to extend gel times is not acceptable unless resulting base grout tank only material exceeds 20% by weight for solution grouts.

- C. During the grouting process, the Grouting Technician shall monitor the grout component tanks to make sure that proper ratios are being pumped. If unequal levels are noted in the tanks, repeat the pump test as described above and correct any defective equipment.
- D. Gel times shall be calculated using the following formula unless CONTRACTOR experience and/or field conditions dictate otherwise. Any alterations of the gel time formula shall be approved by the Engineer.

$$Gel\ Time = \frac{Volume\ of\ Pipe/Packer\ Void\ Space(gal)}{Pumping\ Rate\ (gpm)} \left(\frac{60sec}{1min} \right) + 20sec(\pm 5sec)$$

- E. Packer/Pipe void shall be defined as the volume between the inflated packer and the inside pipe wall when the packer is inflated per manufacturer recommendations. For example: an 8" pipe with a packer void space of 0.3 gallons and a 3 gpm pumping rate would provide

$$Gel\ Time = \frac{.3(gal)}{3(gpm)} \left(\frac{60sec}{1min} \right) + (20\ sec) + 26sec(\pm 5sec)$$

3.5 LATERAL CONNECTION SEALING FROM THE MAINLINE BY PACKER INJECTION GROUTING

- A. Lateral connection sealing begins if the lateral connection does not pass the air test, shows evidence of leakage, has been successfully cleaned to remove roots, or where CONTRACTOR has been directed. The lateral packer shall remain in position during the pressure test, thus maintaining the isolated void. Pressure inject grout through the lateral packer into the annular space between the lateral grouting plug and the lateral pipe.
- B. When pumping grout, operate the pumps until the mixed grout has flowed through any joint failure, through any annular space, and into the surrounding soil; gelled or filled the available void space; formed a cohesive seal stopping further grout flow; and minimum of 8 psi back pressure is achieved while pumping. As grout pumping continues the void pressure will slowly rise to a range of about 2 to 4 psi, continue pumping until a point where there is a sudden increase in the void pressure. This increase from 2 to 4 psi to over 8 to 10 psi takes place in a matter of a few seconds. If the grout pumped exceeds 1 gallon per foot of lateral bladder plus 3 gallons, it will be suspected that there are significant voids on the outside of the pipe or that the packer is not properly sealed. Check that the packer is sealed properly. If it is, modify grouting procedure to stage grouting by pumping additional grout equivalent to 1 gallon plus 0.25 gallon per foot of lateral bladder, waiting 1 full minute, and retesting. The maximum number of stages shall not exceed two stages unless authorized by Engineer.
- C. Upon completion of the lateral connection sealing procedure, deflate the lateral bladder, re-inflate and air test the lateral connection a second time to confirm the sealing of the connection in accordance with the air testing procedure. If the lateral connection fails this air test, repeat the grouting procedure at no additional cost to the Owner, except for the additional grout used. Air tests after grouting laterals containing roots is not required.
- D. Confirm lateral flow after sealing of each lateral connection. If a grout blockage exists, the CONTRACTOR shall immediately clear the lateral at no additional cost to the Owner. Blockages in the lateral that are not the result of grouting operations shall not be the responsibility of the CONTRACTOR.
- E. After grouting lateral connections (with the appropriate size lateral bladder), a thin residual grout film may be present inside the lateral wall. The amount of residual grout film present

is dependent on the lateral bladder used, geometry of the lateral and positioning of the packer. This thin layer of cured grout is normal and will eventually peel off the sidewall of the pipe. The residual chemical grout film is not “sandwiched” between two structures and will eventually peel off the sidewall of the pipe. This residual chemical grout film is not considered excess grout. Removal of residual grout shall be requested by the Engineer and paid for under the unit price for post lateral connection residual grout cleaning.

3.6 DISPOSAL

- A. Collect and properly dispose of cleaning materials used in the cleaning of the grouting equipment.

3.7 POST-CONSTRUCTION INSPECTION

- A. After grouting is complete, all pipe sections shall be final inspected by means of a color video system. The inspection shall be conducted as per the NASSCO Pipeline Assessment and Certification Program. One set of DVD or external flash drive and report shall be submitted.

3.8 QUALITY CONTROL

- A. Conduct warranty video inspection of mainline sewers on all of the pipe sections which contain joint or lateral grouting. This work shall be completed during conditions of high groundwater and shall commence a minimum of 11 months after substantial completion and be completed a maximum of 18 months after final completion. Any joints or lateral connections which were originally sealed and are observed to be leaking shall be re-sealed at no cost to the Owner.

****END OF SECTION****

SECTION 306E – CURED-IN-PLACE PIPE LINING

1.0 GENERAL

1.1 SCOPE

- A. This specification defines the work necessary to furnish and install, complete and in place, cured-in-place pipe (CIPP) lining for sewer main and lateral piping and seals.
- B. The work covered in the specification includes rehabilitation of existing pipes by insertion of a resin-impregnated flexible tube through the host pipe, insertion of a curing bladder, bladder inflation to the inside diameter of the host pipe using low-head hydrostatic or air pressure, and curing the tube using ambient temperature, heated water, or steam. Other methods of curing shall not be used for the main line as part of this project.
- C. The liner shall be installed using “Trenchless Technology”, i.e., no excavation or surface restoration is necessary for this item of work.
- D. This section provides general guidelines. Nothing contained herein shall relieve the CONTRACTOR from completing the CIPP pipe rehabilitation in the most feasible, efficient, highest quality, and safest manner, using required materials to the lines and grades of the sewers to be rehabilitated and to the requirements of this specification.

1.2 RELATED SECTIONS

- A. Section 306A – Bypass Pumping
- B. Section 306B – Sewer Line Cleaning
- C. Section 306C – Video Inspection of Sewer Pipelines
- D. Section 306D – Chemical Grouting

1.3 REFERENCE STANDARDS

- A. ASTM D2990 – Test Method for Tensile, Compressive and Flexural Creep and Creep-Rupture of Plastics
- B. ASTM 578 – Glass Fiber Strands
- C. ASTM 543 – Test Method for Resistance of Plastics to Chemical Reagents
- D. ASTM D638 – Test Method for Tensile Properties of Plastics
- E. ASTM D790 – Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- F. ASTM D883 – Definitions and Terms Relating to Plastics

- G. ASTM D1600 – Abbreviations, Acronyms, and Codes for Terms Relating to Plastics
- H. ASTM D2122 – Test Method for Determining Dimensions for Thermoplastic Pipe and Fittings
- I. ASTM D3567 – Determining Dimensions of “Fiberglass” (Glass-Fiber - Reinforced Thermosetting Resin) Pipe and Fittings
- J. ASTM D5813 – Cured-in-Place Thermosetting Resin Sewer Pipe
- K. ASTM F412 – Definitions of Terms Relating to Plastic Piping Systems
- L. ASTM F1216 – Rehabilitation of Existing Pipelines and Conduits by Inversion and Curing of a Resin Impregnated Tube
- M. ASTM F1743 – Rehabilitation of Existing Pipelines and Conduits by Pulled- in-Place Installation of Cured-in-Place Thermosetting Resin
- N. ASTM F2019 – Rehabilitation of Existing Pipelines and Conduits by the Pulled in Place installation of GRP Cured in Place Resin Pipe
- O. ASTM F2561 – Standard Procedure for Rehabilitation Sewer Service Lateral and Connection to Main
- P. NASSCO Guideline Specification for the Cured-In-Place Pipe (CIPP) Installation, latest edition
- Q. NASSCO Guideline Specifications for Sewer Pipe Cleaning and Pipe Condition Assessment using CCTV

1.4 SUBMITTALS

- A. Submittals shall conform to the requirements of Section 20 of these Special Provisions.
- B. Submit the following information, at minimum:
 - 1. The CONTRACTOR shall submit documentation demonstrating conformance with the employment duration and previous installation quantity requirements in Paragraph 1.5 - Quality Assurance.
 - 2. Safety Plan detailing standards and all regulations pertaining to the work including confined space entry.
 - a. Safety data sheets for all hazardous chemicals used or expected to be onsite. At a minimum, sheets for the resin, catalyst, cleaners, and repair agents shall be submitted. CONTRACTOR shall have copies of SDS documents on site during construction.
 - b. Safety Plan shall include list of all persons assigned to this Work.
 - c. Description of daily safety program at the job site and emergency procedures to be implemented during the event of an incident.

3. Product Data for each type of product to be installed: manufacturer's name, catalog number, cut sheets, technical data, corrosion resistance data, certification of finished liner conformance with ASTM D2990 (10,000-hour test), recommended procedures for handling and storing materials and recommended installation methods for each item. Products include, but not limited to fabric tube, flexible membrane (coating) material and resin data.
 - a. Resin system product data including the actual chemical name of the monomer and spectroscopic wavelength diagram that will be used during CIPP installation.
4. Engineering calculations for the design of the liner thickness per Paragraph 2.5 – Design Criteria. Design calculations shall be checked and approved by an Engineer.
5. Liner Color. The interior liner color shall be white, light green, light red (vitrified clay color), or natural. Yellow, black, and light purple are not acceptable.
6. Construction Sequencing Plan and Details.
 - a. Schedule and sequencing information per Paragraph 1.7B.
 - b. CIPP manufacturer's recommended shipping, storage and handling procedures, resin application, installation procedures, tube wet-out method, curing process details and cure schedules (including heat up, hold and cool-down cycles and temperature control).
 - c. Locations and methods of anticipated point repairs.
 - d. Trimming and finishing at manhole walls and at main line for lateral pipes.
 - e. List of identified existing insertion locations and/or locations where the insertion points will be installed along with documentation that the CONTRACTOR has inspected the proposed location to assess the structure for use.
 - f. Safety systems associated with the proposed heating equipment and boiler management operational safety systems for use with the cure process.
 - g. Means and methods, materials, equipment, and procedures employed to seal annular space between the CIPP and the host pipe at manholes and laterals, terminations within host pipe and, if required, at all internally reinstated lateral connections.
 - h. Contingency Plan: Provide plan for repair of defects that may expose the host pipe during removal of the defect. The plans shall include detailed information on removal of defect and proposed method for defect repair.
7. Video inspection reports and DVDs or external flash drives made prior to and after pipe liner insertion.

8. Certifications and Testing:
 - a. CONTRACTOR shall be an active Nevada licensed contractor through the Nevada State Contractor's Board appropriated for the Work.
 - b. Certification from the CIPP manufacturer that the resin/catalyst and tube material complies with the required application, meets the intended service condition, and complies with the physical requirements.
 - c. Literature and background information on the independent third-party testing laboratory recommended by the manufacturer proposed for testing the physical properties of the installed pipe.
 - d. Manufacturer's certification that lining material is manufactured, sampled, tested, and inspected in accordance with ASTM F1216, ASTM F1743 or ASTM F2019 depending on installation method. Include the manufacturing date of the lining materials in the certification.
 - e. Verification of product conformance by third-party testing for the chemical resistance and physical testing requirements as specified in this Section along with a report of test results.
 - f. Results of chemical resistance testing performed on a previously prepared sample of the finished product proposed for this project. A certified affidavit, signed by an officer of the company, shall be provided stating that the tested resin and the resin submitted for this project are the same.
9. For each diameter and thickness to be installed on the project, provide volume of resin required per unit length (gal/foot or liters/meter) to fill the volume of air voids in the tube plus the additional allowance for polymerization shrinkage and to meet the finished liner strength requirements.
10. Methods, materials, equipment, and procedures employed to contain, treat, and dispose of CIPP process water (heating water, condensate, cooling water, etc.).
11. A copy of all installation, cure, and cool-down logs.
12. Written notification of any crew changes. Notification shall be a minimum of one week prior to date of actual change.
13. Manufacturer's wet-out report.
14. All material testing and field testing certifications and results.

1.5 QUALITY ASSURANCE

- A. Work performed under this Section shall conform to the Drawings and Specifications and shall comply with all standards, rules and regulations, laws and ordinances of the Owner and all other authorities having jurisdiction, as amended. That which is necessary to make the Work comply with the above requirements shall be provided without additional cost to the Owner.

CONTRACTOR shall provide training as needed to help Owner and Owner's Inspector understand the CIPP process, including sampling, videoing, and interpretation of obtained results.

1. The lining installation contractor shall have a minimum of five (5) years of continuous experience installing CIPP liners and a minimum of five (5) projects of like size and lining material with references for work previously performed.
2. The lining installation contractor's foreman must have a minimum of three (3) years of CIPP installation experience including performing as foreman for installation of at least 1,000 linear feet of CIPP in host pipes of equal, or greater, diameter to the Project and at least 50 service lateral connections (SLC). The lining installation contractor's foreman must be on-site during the installation of CIPP products.
3. Any change to the lining installation contractor's foreman shall be approved by the Owner. Notification shall be a minimum of one week prior to date of actual change. All experience requirements above will apply for substitute personnel. CONTRACTOR shall provide experience statement for new foreman.

B. Sampling and Testing

1. The physical properties shall be verified through field sampling and laboratory testing as detailed in Paragraph 3.6 – Sampling and Testing. The CONTRACTOR shall be responsible for all costs associated with the testing of the liner physical properties.

C. Repairs

1. Due to defects in preparation and/or installation, systems will occasionally need to be repaired or partially replaced, the manufacturer shall outline specific repair or replacement procedures for potential issues that may occur during the installation of the system.
2. Repairable issues that may occur in the system shall be specifically based on manufacturer's recommendations, including a detailed step-by-step repair procedure, resulting in a finished product meeting the estimated life cycle of the component and requirements of these Specifications.
3. Correction of failed liner or liner pipe deemed unacceptable, as a result of the post-video inspection and/or test reports for structural values, thickness, chemical resistance, etc., shall be the responsibility of the CONTRACTOR. Method of correction/repair shall be approved by the Owner with prior field demonstration, if required. It shall be understood that minimum criteria of the Specification shall not be lowered to compromise with lower than the required test values, unless approved in writing.
4. Un-repairable issues that may occur in the system shall be clearly defined based on the manufacturer's recommendations. The CONTRACTOR, together with the manufacturer, shall define the best recommended procedure for the total removal and replacement of the system.

5. No additional compensation shall be provided for the repair or replacement of system deemed non-conforming to the requirements of these Special Provisions and unacceptable by the Owner.

1.6 MATERIAL HANDLING

- A. Protection: CONTRACTOR shall exercise adequate care during transportation, handling, and installation to ensure the CIPP material is not torn, cut, or otherwise damaged. Damage includes, but is not limited to, gouging, abrasion, flattening, cutting, puncturing, or ultraviolet (UV) degradation.
- B. Replacement: All damaged materials and pipe rejected by the Engineer shall be promptly removed from the project site at no additional cost to Owner and disposed of in accordance with current applicable regulations.

1.7 PROJECT CONDITIONS

- A. All work on and proximate to the Owner's sewer collection system shall be coordinated with and inspected by the Owner.
 1. The CONTRACTOR shall provide 48-hours notification for all specific work on the sewer system, to allow the Owner to arrange inspections.
 2. Work performed without inspection will not be paid for.
- B. Construction shall follow the construction sequencing as indicated in Paragraph 1.4 and Paragraph 3.2 of this section.
 1. Schedule and sequencing information including:
 - a. CONTRACTOR shall schedule all Work such that each CIPP segment is completed and tested before advancing to the next CIPP segment.
 - b. CONTRACTOR shall schedule the Work such that surface restoration is completed after every 1,000 LF of CIPP, and that surface restoration of disturbed areas is completed no later than 1 week after all work items have been completed at the location of disturbance.
 - c. Eliminate the need for or minimize the number and duration of sewer service interruptions.
 - d. Account for inspection, flushing, and testing requirements.
 - e. The CONTRACTOR shall make every effort to maintain service usage throughout the duration of the project. Any service shutdowns must be requested and approved by the Owner.
 - f. Include sewer flow bypassing measures complying with the requirements as indicated in Section 306A – Bypass Pumping.
 - g. Sequencing plans shall be subject to the review and approval of the Owner.

- C. The CONTRACTOR shall comply with all notification requirements for any sewer system shut-downs and/or interruptions.
- D. Connections to Existing Sewers and Manholes: The CONTRACTOR shall make all required connections to existing sewers and manholes and carry out such work in accordance with local standards and requirements and as directed by the Engineer. Extreme care to prevent debris from entering into existing sewers to be lined shall be exercised.
- E. The CONTRACTOR should assume the pipe needs recleaning prior to lining. CONTRACTOR shall make own decisions regarding cleaning method and is solely responsible for adequately cleaning the pipe for CIPP liner.

1.8 SAFETY

- A. The CONTRACTOR shall conform to all work safety requirements of pertinent regulatory agencies and shall secure the site for working conditions in compliance with the same. The CONTRACTOR shall erect such signs and other devices as are necessary for the safety of the work site.
- B. The CONTRACTOR shall have an odor control plan on site to ensure that project specific odors, including styrene contained in resin, will be minimized at the project site and surrounding residents and public areas.
- C. The CONTRACTOR shall perform all the Work in accordance with applicable OSHA safety standards. Emphasis shall be placed upon the requirements for entering confined spaces and utilizing equipment for CIPP lining.
- D. All entries into or work within confined spaces shall be conducted in accordance with the U.S. Department of Health and Human Services/National Institute for Occupational Safety and Health [DHHS (NIOSH)] Publication No. 87-113, A Guide to Safety in Confined Spaces.

2.0 MATERIALS

2.1 GENERAL

- A. All materials and installation procedures provided by the CONTRACTOR for use in the CIPP installation process shall be equal to or exceed the requirements of Sections 5 and 7 and Appendix XI of ASTM F1216 or ASTM 2019.
- B. CONTRACTOR shall be responsible for control of all material and process variables to provide a finished CIPP possessing the minimum properties specified in ASTM F1216 and supplemented herein.
- C. The finished liner shall consist of an inner polyethylene or polypropylene layer and an outer polyester felt layer, or a fiberglass tube impregnated with a thermosetting resin to fit tightly against the existing inside pipe wall. The finished liner shall be fabricated from materials that, when cured, shall be chemically resistant to withstand internal exposure to sewage gases containing quantities of hydrogen sulfide, carbon monoxide, methane, petroleum hydrocarbons, moisture saturation, and dilute sulfuric acid. The finished liner shall be continuous over the length of pipe reconstructed.

- D. The CIPP shall be designed for a life of 50 years or greater and an equal service life. The CIPP materials shall have corrosion resistance to the typical chemicals found in domestic sewage and meet requirements specified as referenced in ASTM F1216 and ASTM D5813.
- E. Approved CIPP liner manufacturers are Applied Felts, Inc, Insituform®, Inliner®, Pipenology®, or approved equal.

2.2 LINER TUBE

- A. The lining tube shall have a uniform thickness that when compressed at installation pressures will meet or exceed the design thickness.
- B. The lining tube shall be free of tears, holes cuts, foreign materials and other defects and will be subject to inspection by the Inspector.
- C. The lining tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers. No material shall be included in the tube that may cause delamination in the cured CIPP. No dry or unsaturated layers shall be evident.
- D. The tube shall be sewn, not fuse-bonded, to a size that when installed will tightly fit the internal circumference and length of the original pipe. Allowance should be made for circumferential stretching during inversion. Overlapped layers of felt in longitudinal seams that cause lumps in the final product shall not be utilized.
- E. The outside of the lining tube shall be marked for distance at regular intervals along its entire length, not to exceed five feet. Such markings shall include the manufacturer's name or identifying symbol, manufacturing lot and production footage.
- F. Liner Tube Materials
 - 1. Fabric Tube
 - a. The fabric tube shall be a sewn thermoplastic polyester or acrylic tube consisting of one or more layers of flexible needled felt or an equivalent woven and/or non-woven material capable of carrying resin, and with sufficient needling and cross-lapping and strength to withstand the installation pressures and curing temperatures. The fabric tube to be furnished shall be compatible with the resin and catalyst systems to be utilized.
 - b. The finished lining shall consist of an inner polyurethane and an outer polyester felt layer (or layers) impregnated with a thermosetting resin and fabricated to fit tight against the existing pipe wall. An allowance shall be made for circumferential stretching during inversion.
 - c. The outside layer of the tube (before wet-out) shall be coated with an impermeable, flexible membrane that will contain the resin and facilitate monitoring of resin saturation during the resin impregnation (wet-out) procedure.

- d. Seams in the tube shall be stronger than the non-seamed felt and shall meet the requirements of ASTM D5813.

2. Fiberglass Mat Tube

- a. Fiberglass mat tube shall be capable of retaining resin, contained within a system of polyethylene film. The tube shall have sufficient needling and cross lapping to yield a minimum burst strength of 800 pounds per square inch in transverse directions (hoop stress), and strength to withstand the installation pressures and curing temperatures.

2.3 RESIN

- A. The resin shall be a corrosion-resistant polyester or vinyl ester resin and catalyst system, or epoxy and hardener system capable of producing CIPP which will comply with the structural and chemical resistance requirements of this Specification.
- B. The resin shall meet the requirements of ASTM F1216 and ASTM D5813.
- C. The resin used shall be compatible with the rehabilitation process used and designed for a wastewater environment. The resin shall be able to cure in the presence or absence of water, and the initiation temperature for cure shall be as recommended by the resin manufacturer and approved by the Engineer.
- D. The resin shall have sufficient thixotropic properties to obtain non-draining characteristics when impregnated into the fiber fabric.
- E. The catalyst system shall be compatible with the resin and other materials to be utilized in the rehabilitation process. Quantity and type of catalyst shall be selected based on the curing conditions and recommendations of the resin manufacturer.
- F. The method of cure may either be from a manufacturer recommended heat source by heated water or steam, ultraviolet light cure or by ambient temperature. Method of cure instructions along with a cure log shall be on-site at all times.
- G. The resin to tube ratio, by volume, shall be furnished as recommended by the manufacturer.
- H. The use of enhancers will not be allowed.

2.4 FINISHED AND CURED LINER PROPERTIES

- A. Physical Properties. The finished and cured CIPP system shall conform with the minimum structural standards as follows:

Structural/Mechanical Property	ASTM Test Method	ASTM Minimum Short Term Value	ASTM Minimum Long Term Value
Flexural Strength	D790	4,500 psi.	
Flexural Modulus	D790	250,000 psi.	125,000 psi.

- B. The finished liner shall be certified to conform to the requirements of ASTM D543. Exposure should be for a minimum of one (1) month at 73.4 degrees F. During this period, the CIPP test specimens should lose no more than twenty percent (20%) of their initial flexural strength and flexural modulus when tested in accordance with Section 8 of ASTM F1216 when subjected to the following solutions:

<i>Chemical Solution</i>	<i>Concentration (%)</i>
Tap Water	100
Nitric Acid	5
Phosphoric Acid	10
Sulfuric Acid	10
Gasoline	100
Vegetable Oil	100
Detergent	0.1
Soap	0.1

2.5 DESIGN CRITERIA

- A. The liner shall be designed in accordance with the procedures of ASTM F1216, Appendix XI and these Specifications. All material properties used in design calculations shall be long-term (time-corrected) values. CONTRACTOR shall familiarize themselves with site conditions when preparing liner design. The design shall assume no bonding to the original pipe wall.
- B. The Engineer shall set the long term (50-year extrapolated) Creep Retention Factor at 50% of the initial design flexural modulus as determined by ASTM D790 test method. This value shall be used unless the CONTRACTOR submits long term test data (ASTM D2990) to substantiate a different retention factor.
- C. CONTRACTOR shall calculate the required minimum thickness for each pipe based on the existing pipeline conditions. Actual level of deterioration may vary within any given section of sewer.
1. Calculations shall account for the following:
 - a. Liner shall have sufficient strength to bridge missing pipe and stretch to fit irregular pipe sections.
 - b. Hydraulic capacity: The pipe liner shall have a minimum reduction in capacity of the original pipe before rehabilitation. Calculated capacities may be derived using a commonly accepted roughness coefficient for the existing pipe material taking into consideration its age and condition.
 - c. Dead load: use 120 lbs./cu. ft. soil.
 - d. Depth of cover per plan.
 - e. Soil Modulus: use 1,000 psi.
 - f. Live load: use H-20 traffic load.

- g. Pipes in good condition shall have a minimum design value of 2% ovality in the circumference. A higher value of ovality shall be used if the pipe is deteriorated.
 - h. Factor of safety (N): 2.0
- 2. The nominal wall thickness shall be the calculated design thickness or the minimum specified if indicated, whichever is greater.
 - 3. Liner design calculations shall be supported by field analysis, technical assumptions, requirements of these Specifications and ASTM F1216 or ASTM F2019.

2.6 DIMENSIONS

- A. CONTRACTOR shall field verify existing pipe diameters prior to ordering liner tubes.
- B. Outside diameter of the liner tube being inserted shall be properly sized to allow for expansion so that the CIPP liner can fit tightly against the host pipe without longitudinal wrinkles and meet thickness requirements. It is the CONTRACTOR's responsibility to determine the required diameter of the liner.
- C. Liner shall be properly sized to the length to be rehabilitated, be able to stretch to fit irregular pipe sections and be able to negotiate bends and curves with the minimum tube length necessary to effectively span the designated run between manholes, or main line and cleanout, unless otherwise specified. CONTRACTOR shall make allowances in determining the felt tube length for stretch during installation and shrinkage during curing. The minimum length shall be that which continuously spans half the distance from the center of the inlet manhole to the next manhole. Laterals shall be the full length from cleanout to main line.
- D. CONTRACTOR shall verify the lengths of the pipelines to be rehabilitated in the field prior to impregnation of the tube with resin to ensure that the tube will have sufficient length to extend the entire length of the main.

2.7 SERVICE LATERAL CONNECTIONS

- A. The Lateral Lining Assembly shall be continuous in length and consist of one or more layers of absorbent textile material i.e. needle punched felt, circular knit or circular braid that meet the requirements of ASTM F1216 and ASTM D5813 Sections 6 and 8. Lining shall be a minimum of 3.5 mm in thickness.
- B. The Service Lateral Connection (SLC) shall seal the point of connection from a sewer main to a connecting service lateral and shall be installed without excavation by the installation of a resin impregnated one-piece main and lateral cured-in-place lining installed into the existing service lateral, lapping over the sewer main, sealing the connection.
- C. The SLC – Top Hat system shall consist of a one-piece flange/brim-style main to lateral CIPP connection seal with a tube that extends from the sewer main into the lateral a minimum of 6 inches. The main seal shall cover a minimum of one-half the circumference of the mainline CIPP. The brim portion of the connection seal shall overlap the sewer main liner and conform to the requirements in this section.

- D. The SLC – 360°-Main Lateral Seal system shall consist of a one-piece short liner main to lateral CIPP connection seal with a tube that extends from the sewer main into the lateral a minimum of 6 inches. The main seal shall fit tightly against the host pipe without longitudinal wrinkles and meet thickness requirements.
- E. The SLC shall be capable of sealing a combination of “tees” or “wyes” of varying angle. The resin shall be cured to form the tube into a hard impermeable pipe-within-a-pipe.
- F. SLCs installed with resins that claim no adhesion to the host pipe shall include no less than one of the following options to prevent/reduce tracking between the liner and host pipe:
 - 1. An adhesive epoxy compound applied at the interface between the lateral and the sewer main line and at the terminating end of the lateral liner.
 - 2. A hydrophilic sealant/material at the interface between the service lateral and the sewer main and at the terminating end of the lateral liner.
 - 3. Hydrophilic end seals shall be LMK Insignia end seal sleeve, compression gasket, or approved equal.
 - 4. Additional epoxy and/or hydrophilic sealant/material/gasket may be applied to the sewer main portion of a SLC (brim) per manufacturer recommendations.
- G. The installation of the system will require the product to be capable of blind terminations within the service line and capable of navigating bends or other transitions in alignment as identified by the Owner in the Special Provisions. The CONTRACTOR shall provide a product suitable for these conditions when required and demonstrate experience with the proposed product under the referenced conditions.

2.8 SERVICE LATERAL END SEAL

- A. Service lateral termination points shall be defined as the end points of the liner tube: connection between the lateral CIPP and the double wye cleanout, and connection at the main.
- B. CIPP of laterals installed with resins that claim no adhesion to the host pipe shall include:
 - 1. Hydrophilic end seals shall be LMK Insignia end seal sleeve or approved equal.

2.9 TERMINATION SEALS

- A. Manhole and Structure Termination: Ends shall be sealed with a resin mixture or hydrophilic seal compatible with the installed liner material in accordance with the CIPP manufacturer’s recommendations. Sealing shall meet the following criteria:
 - 1. Shall be compatible with the liner/resin system, provide a watertight seal between the liner and host pipe and is approved by the Engineer prior to start of construction.
 - 2. Hydraulic cements and quick-set cement, liquid sealant, adhesives, or other fluid like materials having paste like consistency are not acceptable.

3. Acceptable materials shall be an approved epoxy type product that will bond, not crack, dry up, slough off, or shrink in time, and provide a good transition in the manholes.
4. Hydrophilic end seals shall be LMK Insignia end seal sleeve or approved equal.

3.0 EXECUTION

3.1 GENERAL

- A. This section is intended to provide the CONTRACTOR with general guidance on the methods to be used to install the sewer pipe using the CIPP liner method. Nothing contained herein shall relieve the CONTRACTOR from completing the pipe rehabilitation in the most feasible, efficient, and safe manner, using required materials to the lines and grades shown on the plans and to the requirements of these specifications.

3.2 EXISTING CONDITIONS

- A. Prior to ordering, fabrication, or the commencement of lining any pipes, the CONTRACTOR shall perform a site review, pre-cleaning, and video inspection to verify existing field conditions prior to lining.
- B. It is the CONTRACTOR's responsibility to measure the actual inside diameter at different locations of the existing sewer to determine the appropriate size of CIPP liner to use. CONTRACTOR shall verify internal diameter and length of existing sewer pipe prior to sizing and ordering liner and verify internal diameter of existing lateral connections prior to sizing and ordering service lateral connection liners and lateral CIPP items, if needed.
- C. The CONTRACTOR shall make all necessary measurements in the field to ensure precise fit of items in accordance with the drawings.

3.3 PREPARATION

- A. Prior to pipe rehabilitation, the CONTRACTOR shall perform an initial sewer cleaning per Section 306B – Sewer Line Cleaning.
- B. CONTRACTOR shall provide experienced personnel trained in locating breaks, obstacles, and Service Lateral Connections by video. The interior of the pipelines shall be carefully inspected to determine the location of any condition which may prevent the proper installation of the liner into the pipeline. It shall be verified in writing to the Owner so that these conditions can be corrected.
- C. It shall be the responsibility of the CONTRACTOR to clear the line of obstructions or collapsed pipe that will prevent the insertion of the liner or video camera. If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, CONTRACTOR shall immediately notify Engineer. Engineer may direct CONTRACTOR to make a point repair excavation to uncover and remove or repair the obstruction; such excavation work would be considered extra work requiring the written approval of the Engineer prior to the commencement of the work.

- D. CONTRACTOR shall determine the minimum tube length necessary to effectively span the designated run between manholes, or between main line and cleanout, unless otherwise specified. CONTRACTOR shall field verify the lengths prior to impregnation of the tube with resin, to ensure that the tube will have sufficient length to extend the entire length of run.
- E. The CONTRACTOR shall not permit any sewer lining component to be brought onto the job site until it has been approved by the Engineer.
- F. Engineer, Owner, and Inspector shall be notified at least 48 hours in advance of any Project work to coordinate any potential service outages, bypass pumping, or other coordination considerations.
 - 1. Each pipe liner shall be subject to inspection by the Engineer immediately prior to installation. The Engineer and Inspector shall be informed 24 hours in advance, for verification and inspection of the resin material at the wet-out of the tube. Inspector may require additional coordination on day of installation to coordinate desired observation.

3.4 BYPASS PUMPING

- A. The CONTRACTOR, when required, shall provide for the flow around the section of pipe designated for the liner. Bypass pumping shall conform to the “Bypass Pumping” section of Technical Specification 306A – Bypass Pumping.

3.5 INSTALLATION

A. General

- 1. CONTRACTOR shall utilize the resin and catalyst in sufficient quantities to ensure complete impregnation of the liner and provide the properties specified in this Specification.
- 2. If the wet-out location is not at the project site, the impregnated CIPP tube shall be transported to site under controlled environmental conditions. Transport vehicles shall include a tamper resistant, sealed temperature-recording device which records the temperature of the liner at all times after leaving the wet-out site. The CONTRACTOR shall decide when to transport the impregnated CIPP tube to site and when to commence insertion with respect to weather conditions.
- 3. Liner tube shall be fully impregnated with resin by vacuum or other means prior to installation. The resin and catalyst systems that are compatible with the requirements of the method shall be used. The quantity of resin used for tube impregnation shall be sufficient to fill the volume of air voids in the tube with additional allowance for polymerization shrinkage and the loss of resin through cracks and irregularities in the original pipe wall. Unless otherwise specified to provide for excess resin migration, the gap thickness of the wet-out equipment shall be sized to allow an excess of 5 to 10 percent resin to pass during impregnation.
- 4. The Owner, Engineer and Inspector reserves the right to check, verify, or inspect all phases of production and testing of materials from manufacturing, shipping, wet-out, installation, and cure to finished product.

5. CONTRACTOR shall ensure homeowner has been contacted when on-site to suspend use of lateral during lining.

B. Installation

1. CONTRACTOR shall ensure existing host pipe has been cleaned just prior to installation of CIPP, whether performed concurrently with video or prior to lining, to remove all debris accumulated since the previous pipe cleaning.
 - a. A video inspection of the pipe shall be performed to document any defects in the pipe and verify that the pipe is free of any debris that will cause a defect in the installed CIPP.
2. The liner shall be installed by the inversion tube method. No CIPP installations will be undertaken in weather conditions that could jeopardize the installation of the CIPP or be detrimental to the long-term performance of the CIPP.
3. Installation of termination seals shall be installed no more than 6-inches from the terminating end of the lining tube.
 - a. Installation termination seals shall be done immediately prior to installation of CIPP, per ASTM F2561-11.
4. Transport the liner tube to the site and store in such a manner that it will not be damaged, exposed to heat and/or direct sunlight, or result in any public safety hazard. Materials shall be subject to inspection and review prior to installation. The impregnated liner tube must be installed prior to exceeding the resin pot life.
5. Install the liner tube through the existing manholes in accordance with the manufacturer's recommendations and procedures. Protect manholes from forces generated by equipment, water, or air pressures used while installing the liner tube. The installed pipe liner shall be in strict accordance with the liner manufacturer's instructions and recommendations. The liner shall be inserted through an existing manhole by means of the installation process and the application of hydrostatic head, compressed air, or other means sufficient to fully expand and extend the liner to the next designated manhole or termination point. The liner shall be installed at a rate not to exceed that needed to remove water from the sewer during installation process.
8. CONTRACTOR shall abide by all requirements specified by TMWA for water acquisition.
9. Groundwater
 - a. CONTRACTOR shall ensure that infiltration shall not cause washout of resin or soft spots within the CIPP liner.
 - b. Chemical grouting shall be used in areas where groundwater is infiltrating into the existing pipe to protect the resin from contact with water. Chemical grouting shall be performed per Section 306D – Chemical Grouting.

- c. All required methods for groundwater mitigation shall be performed by the CONTRACTOR at no additional cost to the Owner.

C. Curing

1. Curing Process

- a. CONTRACTOR shall keep and provide a cure log for all curing processes.
- b. After liner placement is completed, a suitable heat source and distribution equipment shall be provided to distribute or recirculate hot water or steam throughout the pipe.
- c. The equipment shall be capable of delivering hot water or steam throughout the section to uniformly raise the temperature above the temperature required to cure the resin.
- d. This temperature shall be determined by the manufacturer based upon the resin/catalyst system employed.
- e. The curing of the CIPP shall account for the existing pipe material, the resin system, and ground conditions (temperature, moisture level, and thermal conductivity of the soil).
- f. After CIPP installation is completed, manufacturer's recommended pressure is maintained on the impregnated CIPP for the duration of the curing process. Curing method shall be compatible with the resin selected and shall be in accordance with manufacturer's recommendations. The initial cure shall be deemed to complete when the CIPP has been exposed to the heat source or held in place for the time period specified by the manufacturer.
- g. The heat source piping shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing water or steam. The temperature gradient across the CIPP liner material, the temperature of the exotherm shall be monitored by remote temperature sensors placed at the interface of the existing pipe and the CIPP. A minimum of two (2) temperature sensors shall be installed, one (1) at either end of the length being lined.
- h. Water or steam temperature during the cure period shall meet the requirements of the resin manufacturer as measured at the heat source inflow and outflow return lines.
- i. Provide standby equipment to maintain supply of the heat source.
- j. Pipelines that connect the liner to the host source shall be leak-free and no cure water is allowed to spill to ground surface. CONTRACTOR shall take full responsibility for all required actions to prevent, contain and remediate and

pay all costs including fees and fines for any spilled or leaked cure water at no additional cost to the Owner.

- k. The CONTRACTOR shall contact Truckee Meadows Water Reclamation Facility (TMWRF) to determine pretreatment requirements for the release of any cure water into the sewer system and shall submit documentation that this has been done. CONTRACTOR may be required to specify the intended volume of cure water and concentrations of chemicals of concern. CONTRACTOR shall submit a pretreatment plan prior to commencing work if pretreatment is required.

2. Cure Period:

- a. Minimum cure period shall be of duration recommended by the resin manufacturer, during which time the recirculation of the water or steam to maintain the temperature continuously takes place.
- b. The initiation temperature for cure shall be as recommended by the resin manufacturer.
- c. The curing process shall not be terminated until the temperature sensor readings indicate that a satisfactory cure has been completed. Any extended cure times shall not adversely affect the properties of the CIPP lining material. The water shall be evacuated from the pipe at a controlled rate to prevent negative pressure in the pipe.
- d. The CONTRACTOR shall cool (if heat cured) the hardened CIPP before relieving the pressure in the pressure apparatus. Care shall be taken to maintain proper pressure throughout the cure and cool-down period.
- e. If cured by ambient-cure process, the CONTRACTOR shall maintain bladder pressure until CIPP has completely cured per manufacturer's recommendations before relieving the pressure in the pressure apparatus.
- f. If hot water cure is utilized for the CIPP curing process, CONTRACTOR shall collect and dispose of all water at a proper facility at their expense.
- g. The CONTRACTOR shall not discharge water into any manholes, other than water utilized during cleaning of the existing pipe in preparation of the CIPP process.

D. Cool-Down:

- 1. After the tube is cured, allow a cool-down period appropriate to prevent cracking of the liner as recommended by resin manufacturer prior to opening the downstream plug and returning normal flow back into the system.
- 2. CONTRACTOR shall monitor and record temperatures and curing data.

3. The CIPP shall be cooled to a temperature below 90 degrees Fahrenheit and held for one (1) hour before relieving the head in the inversion pipe.
4. Cool-down may be accomplished by the introduction of cool water into the CIPP. Care shall be taken in the release of the static head so that a vacuum will not develop that could damage the newly installed liner.

E. Service Lateral Reinstatements

1. Lateral reinstatement shall not occur until after the resin liner has cured and cooled down in accordance with the manufacturer's recommendations.
2. Branch lateral connections or any other pre-existing connection to the service lateral shall be reinstated by a remote controlled robotic cutting device, either from within the pipeline or externally through a cleanout. The reinstated connection shall be brushed to allow for a smooth edge.
3. All laterals shall be reinstated, except those which have been positively identified to be inactive by inspection of the lateral per Section 306C – Video Inspection of Sewer Pipelines. CONTRACTOR to verify all instances with Engineer and Owner prior to reinstating branch lateral to ensure abandonment is not performed or desired.
4. A watertight seal shall be established at each lateral connection to the pipe liner, if required. See Section 2.7 for requirements.
5. The CONTRACTOR shall be responsible for identifying and reconnecting the laterals to the lined pipe. Reinstatement of laterals as identified by video, not as shown on the plans, shall be completed by an internal reinstatement by using a pivot-head video camera and a remote cutting tool to locate the lateral from the inside of the lined pipe and cutting a hole matching the lateral diameter. The CONTRACTOR shall provide a nearly full-diameter hole, free from burns or projections by brushing the lateral connection area to provide a smooth and crack-free edge. The hole shall be 95% minimum and 100% maximum of the original lateral connection. The invert of the lateral connection shall match the bottom of the reinstated lateral opening.
6. The CONTRACTOR shall have a back-up remote control cutting device on site in case of malfunction.
7. Coupons of pipe material resulting from service tap cutting shall be collected at the downstream manhole. No pipe materials shall be allowed to pass through the system.
8. In the event that service reinstatements result in openings that are greater than 100 percent of the service opening, the CONTRACTOR shall install a CIPP type repair sufficiently sized to completely cover the overcut Service Lateral Connection with no additional cost to the Owner.

F. Liner Termination

1. The CIPP liner shall be cut 1-inch minimum beyond the end of the existing host pipe at manholes.
2. Each liner termination requires end seals per Paragraph 2.9 of this section.
3. Restore manhole bottom and invert.

G. Discrepancies

1. In the event of discrepancy, the CONTRACTOR shall immediately notify the Engineer.
2. The CONTRACTOR shall not proceed with the installation in areas of discrepancy until all such discrepancies have been fully resolved with Engineer and Inspector.

3.6 SAMPLING AND TESTING

A. Main CIPP Testing

1. CONTRACTOR shall collect two samples at each required location. CONTRACTOR shall submit one sample to an independent laboratory as outlined in this Section and shall submit one sample to the Owner.
2. One set of samples shall be provided at a minimum from one location per 1,000 linear feet of CIPP installed, and not less than one set per pipe liner diameter.
3. Sample preparation: The CONTRACTOR shall prepare samples of the installed CIPP liner for subsequent testing of its physical properties. Samples shall be prepared and tested using the restrained sample method in accordance with the procedures in Section 8.1 of ASTM F1216 and ASTM F2019.
 - a. Sample to be cut from a section of cured CIPP at the termination point that has been inverted continuously from the main sewer line through a like diameter sampling pipe which has been held in place by a suitable heat sink, such as sandbags.
 - b. Each restrained sample shall be large enough to provide five (5) sample specimens each for Short Term Flexural (Bending) properties and Tensile properties per ASTM D790 and ASTM D638, respectively.
4. Sample Testing. The cured sample shall be tested by an independent testing laboratory, as recommended by the CIPP liner manufacturer and approved by the Engineer, for the bending and tensile properties per ASTM D790 and ASTM D638, respectively. The CONTRACTOR shall be responsible for any deviation from the specified physical properties and those evaluated through testing. Failure to meet the specified physical properties will result in the CIPP liner being considered defective work and shall be removed and replaced at no additional cost to the Owner.

B. Lateral/Main Connection Testing.

1. CONTRACTOR shall collect two samples at each required location. CONTRACTOR shall submit one sample to an independent laboratory for testing as outlined in this section and shall submit one sample to the Owner.

2. One set of samples shall be provided for every ten (10) lateral/main connections, and not less than one (1) set of samples if one or more lateral/main connections are used.
3. Sample preparation: The CONTRACTOR shall prepare samples of the installed CIPP liner for subsequent testing of its physical properties. Samples shall be prepared and tested using the flat plate sampling method in accordance with the procedures in Section 8.1 of ASTM F1216 and ASTM F2019.
 - a. The sample will be clamped in a mold and placed in the down tube during the curing period of the CIPP tube. The samples shall be removed after the bladder is removed from the cured pipe tube.
 - b. Each flat plate sample shall be large enough to provide five (5) sample specimens for Short Term Flexural (Bending) properties and Tensile properties per ASTM D790 and ASTM D638, respectively.
 - c. The sample shall be constructed of the same materials (tube and resin/catalyst) as is used for that given liner installation.
4. Sample Testing. The cured sample shall be tested by an independent testing laboratory, as recommended by the CIPP liner manufacturer and approved by the Engineer, for the bending and tensile properties per ASTM D790 and ASTM D638, respectively. The CONTRACTOR shall be responsible for any deviation from the specified physical properties and those evaluated through testing. Failure to meet the specified physical properties will result in the CIPP liner being considered defective work and shall be removed and replaced at no additional cost to the Owner.

C. Field Sampling Procedure

1. All curing, cutting, and identification of samples will be witnessed by the Owner.
2. Each sample specimen, including those furnished to Owner, shall be identified by:
 - a. Owner's project number and title.
 - b. Sample number.
 - c. Segment number of line as noted on the plans.
 - d. Date and time of sample.
 - e. Name of CONTRACTOR.
 - f. Location and by whom tested.
 - g. Results of test.
 - h. Street name and address.
 - i. Starting and ending manhole identification number for each length of pipe lined based on Owner's asset naming convention.

j. Label as follows:

- 1) Sample A: Restrain Sample
 - 2.) Sample B: Restrain Sample
3. The wall thickness sample shall be used to confirm the wall thickness of the felt tube per ASTM F1743 and ASTM F2019. The wall thickness of the felt tube shall be ordered to the next standard 2 mm incremental thickness above the minimum calculated design thickness. Unless otherwise specified to provide for excess resin migration, the gap thickness of the wetting out equipment shall be sized to allow an excess of five to ten percent (5%-10%) resin to pass during impregnation. The minimum wall thickness shall be determined at a minimum of three (3) locations on a cut section of the CIPP restrained sample using a method of measurement accurate to the nearest 0.005 inch.
- a. Average thickness shall be equal or greater than required design thickness.
 - b. Failure of thickness test shall be grounds for rejection of CIPP liner.

D. Laboratory Testing

1. The samples shall be handled by CONTRACTOR with Chain of Custody control implemented and delivered to an independent third-party testing laboratory.
2. The cured samples shall be tested by an independent testing laboratory, as recommended by the CIPP liner manufacturer and approved by the Engineer, for the bending and tensile properties per ASTM D790 and ASTM D638, respectively.
3. The CONTRACTOR shall be responsible for any deviation from the specified physical properties and those evaluated through testing. Failure to meet the specified physical properties will result in the CIPP liner being considered defective work and shall be removed and replaced at no additional cost to the Owner.

3.7 VIDEO INSPECTION AND ACCEPTANCE OF CIPP

- A. After completion of all liner insertions, service reconnections, and finish work at the manholes, the sewer main and laterals shall be televised with a color video camera with a tilt-head or 360-degree panorama head recorded in digital or other Owner approved format. The original DVD or external flash drive shall be provided to the Engineer.
- B. The Owner and CONTRACTOR, together, will visually confirm that the liner meets Specifications. All video work shall be performed by the CONTRACTOR, under the supervision of the Owner. CONTRACTOR performing the video work shall be PACP-certified and trained to locate breaks, obstacles, and Service Lateral Connections.
- C. The CONTRACTOR shall repair all damages found during the reviewing of these final TV inspection video tapes at no additional cost to the Owner. The damages may include but are not limited to leaks, cracks, unsecure joints, visual defects, and others which in the opinion of the

Engineer are not acceptable and would impair the serviceability of the new piping system. Damages shall be repaired or removed as recommended by the manufacturer.

- D. The installed system shall be continuous over the specified length of the sewer line section (including main line and lateral) and be free from visual defects such as foreign inclusions, dry spots, pinholes, major wrinkles, and de-lamination. The system shall be impervious and free of any leakage from the pipe to the surrounding ground or from the ground to inside the lined pipe.
- E. Interior Surface:
1. Interior surfaces shall be smooth and free from significant wrinkles. Wrinkles in the finished lined pipe are unacceptable if they meet any of the following conditions:
 - a. Cause a backwater greater than one (1) inch in depth.
 - b. Reduce the hydraulic capacity of the pipeline as determined by the Engineer.
 - c. Have a height equal to or greater than 5% of the pipe diameter if on the top half of the pipe.
 - d. Have a height equal to or greater than 3% of the pipe diameter or 0.5 inch, whichever is smaller, if on the lower half of the pipe.
 - e. Cause a maintenance problem or inconvenience as determined by the Engineer.
 - f. Cause debris and solids to hang-up and accumulate.
 - g. Reduce the structural stability of the pipe.
 2. If wrinkles meeting the aforementioned criteria are encountered, they shall be removed or repaired by the CONTRACTOR by a method that is approved by the Engineer at no additional cost to the Owner.
 3. If a void between the wrinkle and the pipe exists, the CONTRACTOR shall repair or replace that section of liner as approved by the Engineer and at no additional cost to the Owner.
 4. If wrinkles are detected in the installed liner, the CONTRACTOR shall provide photographs and dimensions of the wrinkle including height and direction.
 5. Methods of repair shall be proposed by the CONTRACTOR and submitted to the Engineer for review and approval. The Engineer will determine on a case-by-case basis if removal of the wrinkle through replacement or repair of CIPP liner is required.
 6. Lateral seals shall have no indication of separation to either the main or lateral.
- F. Separations of liner seams in the finished liner pipe are unacceptable and shall be removed or repaired by the CONTRACTOR at no additional cost to the Owner. If a separation of a liner seam exists, the CONTRACTOR shall repair or replace that section of the pipe at no additional cost to

the Owner. Methods of repair shall be proposed by the CONTRACTOR and submitted to the Engineer for review and approval.

- G. The finished CIPP shall be free of dry spots, lifts and de-lamination. The system shall not inhibit the video post-video inspection of the sewer main or service lateral pipes. Frayed ends of the system shall be removed prior to acceptance.
- H. All laboratory test results shall be received to the Owner and meet the Specifications prior to final acceptance of the installed CIPP.
- I. All installation logs required to be performed by the CONTRACTOR, as stated within this Specification, shall be submitted to Engineer and Owner.

3.8 CLEAN-UP

- A. The CONTRACTOR shall restore or replace all removed or damaged paving, curbing, sidewalks, gutters, shrubbery, fences, sod or other disturbed surfaces or structures to a condition equal or better to that before the work began to the satisfaction of the Engineer and appropriate property owner and shall furnish all labor and material incidental thereto.
- B. Surplus liner material, tools and temporary structures shall be removed by the CONTRACTOR. All dirt, rubbish and excess earth from the liner installation shall be properly disposed of by the CONTRACTOR and the construction site shall be left clean to the satisfaction of the Owner.

3.9 WARRANTY

- A. Any defects which will affect, in the foreseeable future or warranty period, the integrity or strength of the liner shall be repaired at the CONTRACTOR's expense. Allowance shall be given for the excess pipe when the cross-sectional area has been reduced due to offset joints, partial collapse, out-of-round sections, etc.
- B. The CONTRACTOR shall warrant the completed work against defect in workmanship and material for a period of one (1) year. The warranty shall require the repair or replacement of the liner due to failure resulting from faulty materials or installation as deemed necessary by the Owner. All required work incidental or required as part of the repair or replacement shall be provided by the CONTRACTOR at no additional cost to the Owner. The warranty period begins at the date of Final Acceptance of the entire project.
- C. As part of the Warranty, the CONTRACTOR shall perform a one (1) year video inspection of the liner.
 - 1. The inspection shall be jointly scheduled by the Owner and the CIPP installer to occur 11 months from the date of Final Acceptance of the entire project.
 - 2. The inspection shall be performed by experienced personnel trained in locating abnormalities and defects by video and note any abnormalities or defects observed. If defects are discovered in warranted work or materials, the CONTRACTOR will correct the defects using the guidelines set for in the Specifications.

3. CONTRACTOR shall provide mobilization and demobilization, bypass pumping per Section 306A – Bypass Pumping, cleaning of all sewer mains to be inspected per Section 306B – Sewer Line Cleaning and Section 306C – Video Inspection of Sewer Pipelines, provide traffic and erosion control, and perform site cleanup as part of the one (1) year video liner inspection at no additional cost to the Owner.

****END OF SECTION****

Forms

(to be used following award of bid)

- 1) Contract Form**
- 2) Performance Bond**
- 3) Payment Bond**



SANITARY SEWER CIPP LINING - FISCAL 2024
BID # 23/24-011
PWP# WA-2024-164

THIS CONTRACT made and entered into on this **DAY day of MONTH, YEAR** by and between the City of Sparks, Nevada, a municipal corporation, existing under and by virtue of the laws of the State of Nevada, hereinafter called "City", and **CONTRACTORNAME**, a qualified Contractor in the class of work required, hereinafter called "Contractor".

W I T N E S E T H

WHEREAS, the City has awarded a contract to Contractor for providing material and/or performing the work hereinafter mentioned in accordance with the proposal of said Contractor;

WHEREAS, the Contractor will provide the material and/or perform the work for the compensation stated in said proposal, an amount which has been arrived at between the parties;

WHEREAS, each party is willing to and does assume joint liability for the contents of this Contract, and each party accordingly agrees that it shall not be construed against any party as a drafting party;

NOW, THEREFORE, IT IS AGREED as follows:

1. Scope of Work:

The scope of work for this contract is generally defined as **SANITARY SEWER CIPP LINING - FISCAL 2024**. The City's Contract Documents and Contractor's Entire Proposal are on file with the City of Sparks. All terms, conditions and requirements contained within these Documents, including any and all bid documents, addenda and specifications issued by the City, are hereby incorporated by reference into this Contract.

The Contractor shall perform within the time stipulated, the Contract as herein defined and shall provide and furnish any and all of the labor, materials, methods or processes, equipment implements, tools, machinery and equipment, and all utility, transportation and other services required to construct, install and put in complete order for use in a good and workmanlike manner all of the work covered by the Contract in connection with strict accordance with the plans and specifications therein, which were approved by said City and are on file with the City, including any and all addenda issued by the City, and with the other contract documents hereinafter enumerated.

2. Payment for Project Services

As full consideration for the Services to be performed by Contractor, City agrees to pay Contractor as set forth in accordance with the bid and not to exceed fee of **\$AMOUNT** for the project.

A monthly progress payment in the amount of ninety-five percent (95%) of the value of the work completed may be made every thirty (30) days upon application by the Contractor and certification by the Project Manager that such work has been completed.



Partial payments will be made once each month as the work satisfactorily progresses and after acceptance by the authorized City representative. The progress estimates shall be based upon materials in place, or on the job site and invoiced, and labor expended thereon. From the total of the amount ascertained will be deducted an amount equivalent to five percent (5%) of the whole, which five percent (5%) will be retained by the City until after completion of the entire Contract in an acceptable manner. Any time after fifty percent (50%) of the value of the work has been completed, the City will make any of the remaining partial payments in full.

No such estimates or payments shall be required to be made, when, in the judgment of the City Project Manager, the work is not proceeding in accordance with the provision of the Contract, or when in his judgment the total value of the work done since last estimate amounts to less than Five Hundred Dollars (\$500.00).

The cost of materials conforming to the plans and specifications (materials being those which are required to be contained and incorporated in a finished contract bid item) delivered to the project and not at the time incorporated in the work, may also be included in the estimate for payment. No such estimate or payment shall be construed to be an acceptance of any defective work or improper material. The Contractor shall be responsible for, and shall not remove from the project any material that has been included in the estimate for payment.

Final payment shall be made upon the Project Manager certifying that the Contractor has satisfactorily completed the work in conformity with the Contract Documents.

3. Time for Completion:

The Contractor shall deliver the material and/or services called for in the specifications/proposal and within the delivery time specified and in accordance with the terms of the contract. Work shall be completed within [REDACTED] days from the Notice to Proceed issued by the City of Sparks Purchasing Division. The Contractor shall not alter or vary any terms or conditions contained or incorporated herein, including but not limited to, the quantity, price, delivery date or date designated as After Receipt of Order (ARO) or date for commencement or completion of services as mutually agreed upon, unless such alteration or variation is consented to in writing by a duly authorized representative of the City.

The City reserves the right to cancel resultant Contract upon ten days written notice in the event the type and quality of the product or work performance is unsatisfactory or in default, subject to Contractor's right to cure as outlined in termination clause.

This is a non-exclusive Contract and the City reserves the right to acquire the material and/or services at its discretion, from other sources during the term of this Contract.

4. No Unlawful Discrimination:

In connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation, gender identity or expression, or age, including, without limitation, with regard to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including, without



limitation, apprenticeship. The contractor further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

Any violation of these provisions by Contractor shall constitute a material breach of contract. In all cases where persons are employed in the construction of public works, preference must be given when the qualifications of the applicants are equal:

- A) First: To honorably discharged soldiers, sailors and marines of the United States who are citizens of the State of Nevada.
- B) Second: To other citizens of the State of Nevada

If the provisions of this section are not complied with by the contractor engaged on the public work, the contract is void, and any failure or refusal to comply with any of the provisions of this section renders any such contract void and subject to the exceptions contained in this section, no money may be paid out of the State Treasury or out of the treasury of any political subdivision of the State to any person employed on any work mentioned in this section unless there has been compliance with the provisions of this section. Any contractor engaged on a public work or any other person who violates any of the provisions of this section is guilty of a misdemeanor. The penalties provided for in this section do not apply where violations thereof are due to misrepresentations made by the employee or employees.

5. No Illegal Harassment:

Violation of the City's harassment policy, which is incorporated by reference and available from the Human Resource Division, by the Contractor, its officers, employees, agents, vendors, consultants, subcontractors and anyone from whom it is legally liable, while performing or failing to perform Contractor's duties under this Contract shall be considered a material breach of contract.

6. Lawful Performance:

Vendor shall abide by all Federal, State and Local Laws, Ordinances, Regulations, and Statutes as may be related to the performance of duties under this agreement. In addition, all applicable permits and licenses required shall be obtained by the vendor, at vendor's sole expense.

7. Preferences (This Section IS IS NOT Applicable to this contract):

To the extent Contractor has sought and qualified for a bidding preference and this project has a value of over \$250,000 pursuant to Nevada Revised Statutes Chapter 338, Contractor acknowledges and agrees that the following requirements will be adhered to, documented and attained for the duration of the Project:

- 1. At least 50 percent of the workers employed on the Project (including subcontractors) hold a valid driver's license or identification card issued by the Nevada Department of Motor Vehicles;
- 2. All vehicles used primarily for the public work will be (a) registered and (where applicable) partially apportioned to Nevada; or (b) registered in Nevada; and
- 3. The Contractor shall maintain and make available for inspection within Nevada all payroll records related to the Project.

Contractor recognizes and accepts that failure to comply with any requirements herein shall be a



material breach of the contract and entitle the City of Sparks to liquidated damages in the amount set by statute. In addition, the Contractor recognizes and accepts that failure to comply with any requirements herein may lose its certification for a preference in bidding and/or its ability to bid on any contracts for public works pursuant to NRS Chapter 338.

To the extent Contractor has sought and qualified for a bidding preference and this project has a value of over \$250,000 pursuant to Nevada Revised Statutes Chapter 338, each contract between the contractor, applicant or design-build team and a subcontractor must provide for the apportionment of liquidated damages assessed pursuant to this section if a person other than the Contractor was responsible for the breach of a contract for a public work caused by a failure to comply with a requirement of Items 1-5 within this section. The apportionment of liquidated damages must be in proportion to the responsibility of each party for the breach.

8. Prevailing Wages:

The Contractor and subcontractors shall be bound by and comply with all federal, state and local laws with regard to minimum wages, overtime work, hiring and discrimination, including Chapter 338 of the NRS, which is entitled, "Public Works Projects."

The Contractor shall ensure that all employees on the work site are paid in accordance with the CURRENT PREVAILING WAGE RATES AS APPROVED BY THE STATE LABOR COMMISSIONER, whenever the actual value of the Contract totals One Hundred Thousand Dollars (\$100,000) or more, or when required by the Supplementary Conditions. If a Change Order causes a Contract to exceed One Hundred Thousand Dollars (\$100,000), the State Labor Commissioner may audit the entire Contract period.

Questions involving the Prevailing Wage Rates for the City of Sparks should be referred to the Labor Commissioner, State of Nevada, at (775) 687-4850.

When federal money is associated with the project making the Contract subject to both state and federal wage rates, the Contractor shall not pay less than the higher rate when the two rates differ for similar kinds of labor.

- A. Posting of Minimum Wage Rates - In accordance with NRS, Chapter 338, Section 338.020, the Contractor shall post the hourly and daily rate of wages to be paid to each of the classes of mechanics and workers on the site of Work of this Contract in a place generally visible to the workers.
- B. Pursuant to NRS 338.060 and 338.070, the Contractor hereby agrees to forfeit, as a penalty to the City of Sparks, not less than Twenty Dollars (\$20) nor more than Fifty Dollars (\$50) for each calendar day or portion thereof that each worker employed on the Contract is paid less than the designated rate for any work done under the Contract, by the Contractor or any subcontractor under him, or is not reported to the City of Sparks as required by NRS 338.070.
- C. The contractor and each subcontractor shall keep or cause to be kept an accurate record showing, for each worker employed by the contractor or subcontractor:
 - (1) The name of the worker;



-
- (2) The occupation of the worker;
 - (3) If the worker has a driver's license or identification card, an indication of the state or other jurisdiction that issued the license or card; and
 - (4) The actual per diem, wages and benefits paid to the worker.

In addition, the contractor and each subcontractor shall keep or cause to be kept an accurate record showing, for each worker employed by the contractor or subcontractor who has a driver's license or identification card:

- (1) The name of the worker;
- (2) The driver's license number or identification card number of the worker; and
- (3) The state or other jurisdiction that issued the license or card.

D. The records in Section C above must be open at all reasonable hours to the inspection of the City of Sparks, and its officers and agents. A copy of the each record for each calendar Month for the General Contractor and all Sub-Contractors must be submitted to the City of Sparks no later than 15 days after the end of each month for the previous months' wages.

9. Apprenticeship Utilization Act:

Bidder acknowledges that the Nevada Legislature has enacted state laws requiring contractors engaged in vertical or horizontal construction who employ workers on one or more public works during a calendar year to use varying levels of apprentices on such public works. *See* NRS 338.01165; SB 82 (2023). Contractor acknowledges that Senate Bill 82 (2023) places compliance and reporting requirements on contractors and subcontractors engaged in public works project, and requires contractors and subcontractors engaged in public works projects to meet annual apprentice use thresholds set by state law, including obligations to provide the Nevada Labor Commissioner with supporting documentation when requested, and an obligation to provide an annual report to the Nevada Labor Commissioner documenting its compliance with Nevada apprenticeship requirements. Contractor acknowledges and certifies that it will comply with NRS 338.01165 and SB 82 (2023), as each may be amended in the future.

10. Acceptance by the City:

It is expressly understood and agreed that all materials provided and/or work done by the Contractor shall be subject to inspection and acceptance by the City at its discretion, and that any progress inspections and approval by the City of any item or work shall not forfeit the right of the City to require the correction of faulty workmanship or material at any time during the course of the work, although previously approved by oversight. Nothing herein contained shall relieve the Contractor of the responsibility for proper construction and maintenance of the work, materials and equipment required under the terms of this Contract until all work has been completed and accepted by the City.

11. Waiver:

No waiver of any term, provision or condition of this Contract, whether by conduct or otherwise, in any one or more instances, shall be deemed to be nor shall it be construed as a further or continuing waiver of any such term, provision or condition of this Contract. No waiver shall be effective unless it is in writing and signed by the party making it.

12. Notices:



All notices required to be given in writing by this Contract shall be deemed to be received (i) upon delivery if personally delivered, or (ii) when receipt is signed for if mailed by certified or registered mail, postage prepaid, or by express delivery service or courier, when addressed as follows (or sent to such other address as a Party may specify in a notice to the others):

PURCHASING MANAGER
CITY OF SPARKS
431 PRATER WAY
PO BOX 857
SPARKS, NV 89432-0857

CONTRACTOR:
CONTACT
CONTRACTORNAME
ADDRESS
CITY, STATE ZIP
e-mail:

13. Arbitration:

Any and all disputes, controversies or claims arising under or in connection with this Contract, including without limitation, fraud in the inducement of this Contract, or the general validity or enforceability of this Contract, shall be governed by the laws of the State of Nevada without giving effect to conflicts of law principles, may be submitted to binding arbitration before one arbitrator, and shall be conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association in a private manner in Washoe County, Nevada. This award shall be final and judgment may be entered upon it in any court having jurisdiction thereof. In reaching this final award, the arbitrator shall have no authority to change or modify any provision of this Contract. All other expenses of arbitration shall be borne equally by the parties. All fees, including legal fees, shall be borne by the party who incurred them. All costs of enforcement shall be borne by the losing party. Each party shall have the right to discovery in accordance with the Nevada Rules of Civil Procedure.

14. Jurisdiction and Venue:

In the event the arbitration award is challenged, any action or proceeding seeking to do so must be brought in the courts of the State of Nevada, County of Washoe, or if the party can acquire subject-matter jurisdiction, in the United States District Court for the District of Nevada in the City of Reno. Each of the parties consents to the personal jurisdiction of such courts (and of the appropriate appellate courts) in any such action or proceeding and waives any objection to venue laid therein. Process in any action or proceeding referred to in the preceding sentence may be served on either party by sending it certified mail to the respective addresses designated for notice.

15. Indemnification:

To the fullest extent permitted by law, upon award, Contractor shall hold harmless, indemnify, defend and protect City, its affiliates, officers, agents, employees, volunteers, successors and assigns (“Indemnified Parties”), and each of them from and against any and all claims, demands, causes of action, damages, costs, expenses, actual attorney’s fees, losses or liabilities, in law or in equity, of every kind and nature whatsoever (“Claims”) arising out of or related to any act or omission of Contractor, its employees, agents, representatives, or Subcontractors in any way related to the performance of work under this Agreement by Contractor, or to work performed by others under the direction or supervision of Contractor, including but not limited to:



1. Personal injury, including but not limited to bodily injury, emotional injury, sickness or disease, or death to persons;
2. Damage to property of anyone, including loss of use thereof;
3. Penalties from violation of any law or regulation caused by Contractor's action or inaction;
4. Failure of Contractor to comply with the Insurance requirements established under this Agreement;
5. Any violation by Contractor of any law or regulation in any way related to the occupational safety and health of employees.

In determining the nature of the claim against City, the incident underlying the claim shall determine the nature of the claim, notwithstanding the form of the allegations against City.

If City's personnel are involved in defending such actions, Contractor shall reimburse City for the time and costs spent by such personnel at the rate charged City for such services by private professionals.

In cases of professional service agreements, requiring professional liability coverage:

If the insurer by which a Consultant is insured against professional liability does not so defend the City and applicable agents and/or staff, and the Consultant is adjudicated to be liable by a trier of fact, the City shall be entitled to reasonable attorney's fees and costs to be paid to the City by the Consultant in an amount which is proportionate to the liability of the of the Consultant.

Nothing in this contract shall be interpreted to waive nor does the City, by entering into this contract, waive any of the provisions found in Chapter 41 of the Nevada Revised Statutes.

16. Licenses and Permits:

The Contractor shall procure at his own expense all necessary licenses and permits and shall adhere to all the laws, regulations and ordinances applicable to the performance of this Contract.

All Contractors, Sub-Contractors and Suppliers doing business within the City of Sparks are required to obtain a current business license from the City of Sparks prior to commencement of this contract. Per Sparks Municipal Code Section 5.08.020A: "It is unlawful for any person to transact business in the City without first having obtained a license from the City to do so and without complying with all applicable provisions of this title and paying the fee therefore."

17. Insurance:

BIDDERS' ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW. IT IS HIGHLY RECOMMENDED THAT BIDDERS CONFER WITH THEIR RESPECTIVE INSURANCE CARRIERS OR BROKERS TO DETERMINE IN ADVANCE OF BID SUBMISSION THE AVAILABILITY OF INSURANCE CERTIFICATES AND ENDORSEMENTS AS PRESCRIBED AND PROVIDED HEREIN. IF THE APPARENT LOW BIDDER FAILS TO COMPLY STRICTLY WITH THE INSURANCE REQUIREMENTS, THAT BIDDER MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.



The City may, unless otherwise required by law, waive or reduce the insurance requirements itemized here, at the discretion of the city’s Contracts and Risk Manager.

Should work be required on City premises or within the public right-of-way, upon award of the contract, the bidder shall provide proof of insurance for the types of coverage, limits of insurance and other terms specified herein, prior to initiation of any services under City, Bid, Proposal or Contract. Coverage shall be from a company authorized to transact business in the State of Nevada and the City of Sparks and shall meet the following minimum specifications:

Contractor shall at its own expense carry and maintain at all times the following insurance coverage and limits of insurance no less than the following or the amount customarily carried by Contractor or any of its subcontractors, whichever is greater. Contractor shall also cause each subcontractor employed by Contractor to purchase and maintain insurance of the type specified herein. All insurers must have AM Best rating not less than A-VII, and be acceptable to the City. Contractor shall furnish copies of certificates of insurance evidencing coverage for itself and for each subcontractor. Failure to maintain the required insurance may result in termination of this contract at City’s option. If Contractor fails to maintain the insurance as set forth herein, City shall have the right, but not the obligation, to purchase said insurance at Contractor’s expense.

Contractor shall provide proof of insurance for the lines of coverage, limits of insurance and other terms specified below prior to initiation of any services. Coverage shall be from a company authorized to transact business in the State of Nevada and the City of Sparks. Contractor and any of its subcontractors shall carry and maintain coverage and limits no less than the following or the amount customarily carried by Contractor or any of its subcontractors, whichever is greater.

Applicable to this Contract	Insurance Type	Minimum Limit	Insurance Certificate	Additional Insured	Waiver of Subrogation
Yes	General Liability/Umbrella (Excess) Liability	\$2,000,000	✓	✓	✓
Yes	Automobile Liability	\$1,000,000	✓	✓	
Yes	Workers’ Compensation	Statutory	✓	N/A	✓
Yes	Employer’s Liability	\$1,000,000	✓	N/A	
No	Professional Liability	\$1,000,000	✓	N/A	N/A
No	Pollution Legal Liability	\$1,000,000	✓	N/A	N/A

Commercial General Liability

Contractor shall carry and maintain Commercial General Liability (CGL) and, if necessary to meet required limits of insurance, commercial umbrella/excess liability insurance with a total limit of not less than the limits specified herein.



For contracts that are for the construction or improvement of public facilities, the Contractor shall obtain and maintain products and completed operations liability coverage through the statute of repose after completion of the project. Continuing commercial umbrella coverage, if any, shall include liability coverage for damage to the insured's completed work equivalent to that provided under ISO form CG 00 01.

There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from pollution, explosion, collapse, underground property damage, or damage to the named insured's work unless Subcontractor carries and maintains separate policies providing such coverage and provides Contractor evidence of insurance confirming the coverage.

Minimum Limits of Insurance

- \$2,000,000** Each Occurrence Limit for bodily injury and property damage
- \$2,000,000** General Aggregate Limit
- \$2,000,000** Products and Completed Operations Aggregate Limit
- \$10,000** Medical Expense Limit

If Commercial General Liability Insurance or other form with a general aggregate limit is used, it shall be revised to apply separately to this PROJECT or LOCATION.

Coverage Form

Coverage shall be at least as broad as the unmodified Insurance Services Office (ISO) Commercial General Liability (CGL) "Occurrence" form CG 00 01 04/13 or substitute form providing equivalent coverage and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

Additional Insured

City, its officers, agents, employees, and volunteers are to be included as insureds using the applicable ISO additional insured endorsement(s) or substitute forms providing equivalent coverage, in respects to damages and defense arising from: activities performed by or on behalf of Contractor, including the insured's general supervision of Contractor; products and completed operations of Contractor; premises owned, occupied, or used by Contractor. The coverage shall contain no special limitations on the scope of protection afforded to City, its officers, employees, or volunteers. Additional insured status for City shall apply until the expiration of time within which a claimant can bring suit per applicable state law.

Primary and Non-Contributory

Contractor's insurance coverage shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to City, its officers, agents, employees, and volunteers. There shall be no endorsement or modification of the CGL to make it excess over other available insurance; alternatively, if the CGL states that it is excess or pro rata, the policy shall be endorsed to be primary with respect to the additional insured. Any insurance or self-insurance maintained by City, its officers, employees, or volunteers shall be excess of Contractor's insurance and shall not contribute with it in any way.

Waiver of Subrogation



Contractor waives all rights against City and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the commercial general liability or commercial umbrella liability insurance maintained pursuant to this agreement. Insurer shall endorse CGL policy as required to waive subrogation against the City with respect to any loss paid under the policy.

Endorsements

Policy forms or endorsements are required confirming coverage for all required additional insureds. The forms or endorsements for CGL shall be at least as broad as the unmodified ISO additional insured endorsement CGO 20 10 07/04 and CG 20 37 07/04 or substitute forms providing additional insured coverage for products and completed operations.

A waiver of subrogation in favor of City shall be endorsed to the policy using an unmodified Waiver of Transfer of Rights of Recovery of Others to Us ISO CG 24 04 05 09, or a substitute form providing equivalent coverage.

Electronic Data Liability

If any underground work will be performed, Contractor shall maintain electronic data liability insurance applicable to the Project and insuring against liability arising out of the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate electronic data. This coverage shall be maintained with a limit of liability of not less than \$1,000,000 and provide coverage at least as broad as electronic data liability coverage form CG 04 37 (or substitute form providing equivalent coverage).

Railroad Protective Liability

For any construction or demolition work within fifty (50) feet of a railroad, Contractor shall maintain Railroad Protective Liability insurance on behalf of and in the name of the railroad, as named insured, with a limit of \$6,000,000 per occurrence or higher limit if required by the railroad. Contractor shall also ensure that any exclusions pertaining to the indemnification of a railroad are removed from its CGL policy or that ISO form CG 24 17 (Contractual Liability-Railroads Endorsements) is included in the coverage.

Business Automobile Liability

Minimum Limits of Insurance

\$1,000,000 Combined Single Limit per accident for bodily injury and property damage or the limit customarily carried by Contractor, whichever is greater. No aggregate limit may apply. Coverage may be combined with Excess/Umbrella Liability coverage to meet the required limit.

Coverage Form

Coverage shall be at least as broad as the unmodified Insurance Services Office (ISO) Business Automobile Coverage form CA 00 01 10/13, CA 00 25 10/13, CA 00 20 10/13 or substitute form providing equivalent coverage. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos).

Pollution liability coverage at least as broad as that provided under the ISO pollution liability—broadened coverage for covered autos endorsement (CA 99 48) shall be provided, and the Motor Carrier Act endorsement (MCS 90) shall be attached for all contracts involving transportation of “hazardous



material” as this term is defined by applicable law, including, but not limited to, waste, asbestos, fungi, bacteria and mold.

Additional Insured

City, its officers, agents, employees, and volunteers are to be included as insureds with respect to damages and defense arising from the ownership, maintenance or use of automobiles owned, leased, hired, or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to City, its officers, employees, or volunteers. Additional insured status for City shall apply until the expiration of time within which a claimant can bring suit per applicable state law.

Endorsements

A policy endorsement is required listing all required additional insureds. The endorsement for Business Automobile Liability shall be at least as broad as the unmodified ISO CA 20 48 10/13 or a substitute form confirming City’s insured status for Liability Coverage under the Who Is An Insured Provision contained in Section II of the coverage form ISO CA 00 01 10/13.

Waiver of Subrogation.

Contractor waives all rights against City, its officers, agents, employees, and volunteers for recovery of damages to the extent these damages are covered by the commercial general liability or commercial umbrella liability insurance maintained pursuant to this agreement. Contractor’s insurer shall endorse policy to waive subrogation against City with respect to any loss paid under the policy.

Workers’ Compensation and Employer’s Liability

Contractor shall carry and maintain workers’ compensation and employer’s liability insurance meeting the statutory requirements of the State of Nevada, including but not limited to NRS 616B.627 and NRS 617.210 or provide proof that compliance with the provisions of Nevada Revised Statutes Chapters 616A-D and all other related chapters is not required. It is understood and agreed that there shall be no coverage provided for Contractor or any Subcontractor of the Contractor by the City. Contractor agrees, as a precondition to the performance of any work under this Agreement and as a precondition to any obligation of the City to make any payment under this Agreement to provide City with a certificate issued by an insurer in accordance with NRS 616B.627 and with a certificate of an insurer showing coverage pursuant to NRS 617.210.

It is further understood and agreed by and between City and Contractor that Contractor shall procure, pay for and maintain the above-mentioned coverage at Contractor's sole cost and expense.

Should Contractor be self-funded for workers’ compensation and employer’s liability insurance, Contractor shall so notify City in writing prior to the signing of this Contract. City reserves the right to approve said retentions, and may request additional documentation, financial or otherwise, for review prior to the signing of this Contract.

Upon completion of the project, Contractor shall, if requested by City, provide a Final Certificate for itself and each Subcontractor showing that Contractor and each Subcontractor had maintained the required Workers Compensation and Employer’s Liability by paying all premiums due throughout the entire course of the project.



Nevada law allows the following to reject workers' compensation coverage if they do not use employees or subcontractors in the performance of work under the contract:

- Sole proprietors (NRS 616B.627 and NRS 617.210)
- Unpaid officers of quasi-public, private or nonprofit corporations (NRS 616B.624 and NRS 617.207)
- Unpaid managers of limited liability companies (NRS 616B.624 and NRS 617.207)
- An officer or manager of a corporation or limited liability company who owns the corporation or company (NRS 616B.624 and NRS 617.207)

If a contractor has rejected workers' compensation coverage under applicable Nevada law, the contractor must indicate the basis for the rejection of coverage and complete, sign and have notarized an Affidavit of Rejection of Coverage. The Affidavit must be completed, signed and notarized prior to performance of any work.

Minimum Limits of Insurance

Workers' Compensation:	Statutory Limits
Employer's Liability:	\$1,000,000 Bodily Injury by Accident – Each Accident
	\$1,000,000 Bodily Injury by Disease – Each Employee
	\$1,000,000 Bodily Injury by Disease – Policy Limit

Coverage Form

Coverage shall be at least as broad as the unmodified National Council on Compensation Insurance (NCCI) Workers Compensation and Employer's Liability coverage form WC 00 00 07/11 or substitute form providing equivalent coverage.

OTHER INSURANCE COVERAGES (IF APPLICABLE)

Professional Liability Insurance (if Applicable) \$1,000,000 each claim limits of liability or whatever limit is customarily carried by the Contractor, whichever is greater, for design, design-build or any type of professional services. If coverage is required on a claims-made or claims-made and reported basis, any applicable retroactive or pending & prior litigation dates must precede the effective date of this contract. Continuous coverage shall be maintained, or an extended reporting period shall be obtained for a period of at least three (3) years following completion of the project.

Contractors Pollution Liability Insurance (If Applicable)- \$1,000,000 per occurrence and \$2,000,000 aggregate or whatever amount is acceptable to the City for any exposure to "hazardous materials" as this term is defined in applicable law, including but not limited to waste, asbestos, fungi, bacterial or mold.

Coverage shall apply to bodily injury; property damage, including loss of use of damaged property or of property that has not been physically injured; cleanup costs; and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims.

City shall be included as an insured under Contractor's pollution liability insurance.



If coverage is required on a claims-made or claims-made and reported basis, any applicable retroactive or pending & prior litigation dates must precede the effective date of this contract. Continuous coverage shall be maintained, or an extended reporting period shall be obtained for a period of at least three (3) years following completion of the project.

If the scope of services as defined in this contract includes the disposal of any hazardous materials from the job site, Contractor must furnish to City evidence of pollution liability insurance maintained by the disposal site operator for losses arising from the insured facility accepting waste under this contract. Coverage certified to the City under this section must be maintained in minimum amounts of \$1,000,000 per loss, with an annual aggregate of at least \$2,000,000.

Lower tier sub-subcontractors, Truckers, Suppliers: Evidence confirming lower tier subcontractors, truckers and suppliers are maintaining valid insurance prior to beginning work on the project to meet the requirements set forth herein on Subcontractor, including but not limited to all additional insured requirements of Subcontractor.

ALL COVERAGES

Coverage shall not be suspended, voided, canceled, or non-renewed by either CONTRACTOR or by the insurer, reduced in coverage or in limits except after thirty (30) days' prior written notice has been given to CITY except for ten (10) days' notice for nonpayment of premium.

DEDUCTIBLES AND RETENTIONS

Any deductibles or self-insured retentions that exceed \$100,000.00 per occurrence or claim must be declared to and approved by the City's Contracts and Risk Manager and prior to signing this Contract. City is entitled to request and receive additional documentation, financial or otherwise, prior to giving its approval of the deductibles and self-insured retentions. Any changes to the deductibles or self-insured retentions made during the term of this Contract or during the term of any policy must be approved by City's Contracts and Purchasing Manager prior to the change taking effect. Contractor is responsible for any losses within deductibles or self-insured retentions.

OTHER INSURANCE PROVISIONS

Should City and Contractor agree that higher coverage limits are needed warranting a project policy, project coverage shall be purchased and the premium for limits exceeding the above amount may be borne by City. City retains the option to purchase project insurance through Contractor's insurer or its own source.

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to City, its officers, agents, employees, or volunteers.

ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers with a Best's rating of no less than A-VII and acceptable to the City. City, with the approval of the Risk Manager, may accept coverage with carriers having lower Best's ratings upon review of financial information concerning Contractor and insurance carrier. City reserves the right to require that Contractor's insurer be a licensed and admitted insurer in the State of Nevada, or meet any applicable state and federal laws and regulations for non-admitted insurance placement.



VERIFICATION OF COVERAGE

Contractor shall furnish City with certificates of insurance and with original endorsements affecting coverage required by this contract. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

Prior to the start of any Work, Contractor must provide the following documents to City of Sparks, Attention: Purchasing Division, P.O. Box 857, Sparks, NV 89432-0857:

- A. Certificate of Insurance.** Contractor must provide a Certificate of Insurance form to the City of Sparks to evidence the insurance policies and coverage required of Contractor.

- B. Additional Insured Endorsements.** An original Additional Insured Endorsement, signed by an authorized insurance company representative, must be submitted to the City of Sparks, by attachment to the Certificate of Insurance, to evidence the endorsement of the City of Sparks as additional insured.

- C. Policy Cancellation Endorsement.** Except for ten (10) days' notice for non-payment of premium, each insurance policy shall be endorsed to specify that without thirty (30) days prior written notice to the City of Sparks, the policy shall not be suspended, voided, cancelled or non-renewed, and shall provide that notices required by this paragraph shall be sent by certified mailed to the address specified above. A copy of this signed endorsement must be attached to the Certificate of Insurance. If endorsements are not available, Contractor shall be responsible to provide prior written notice to City as soon as practicable upon receipt of any notice of cancellation, non-renewal, reduction in required limits or other material change in the insurance required under this Agreement.

- D. Bonds (as Applicable).** Bonds as required and/or defined in the original bid documents.

All certificates and endorsements are to be addressed to the City of Sparks, Purchasing Division and be received and approved by City before work commences. The City reserves the right to require complete certified copies of all required insurance policies at any time.

SUBCONTRACTORS

Contractor shall include all Subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each Subcontractor. All coverages for Subcontractors shall be subject to all the requirements stated herein.

MISCELLANEOUS CONDITIONS

1. Contractor shall be responsible for and remedy all damage or loss to any property, including property of City, caused in whole or in part by Contractor, any Subcontractor, or anyone employed, directed, or supervised by Contractor.
2. Nothing herein contained shall be construed as limiting in any way the extent to which Contractor may be held responsible for payment of damages to persons or property resulting from its operations or the operations of any Subcontractors under it, and such coverage and



limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to City in this contract.

3. In addition to any other remedies City may have if Contractor fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option:
 - a. Purchase such insurance to cover any risk for which City may be liable through the operations of Contractor under this Agreement and deduct or retain the amount of the premiums for such insurance from any sums due under the Agreement;
 - b. Order Contractor to stop work under this Agreement and/or withhold any payments which become due Contractor here under until Contractor demonstrates compliance with the requirements hereof; or,
 - c. Terminate the Agreement.
4. If Contractor's liability policies do not contain the standard ISO separation of insureds condition, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

18. Liquidated Damages:

If the Product is not delivered/Project is not completed within the time stipulated in the bid, the Contractor shall pay to the City of Sparks as fixed, agreed and liquidated damages for delay and not as a penalty (it being impossible to determine the actual damages occasioned by the delay) **\$AMT** for each **_____** day of delay until delivery is completed; the Contractor shall be liable to the City of Sparks for the amount herein. This amount may be deducted from money due or to become due to the Contractor as compensation under this proposal in the event the Contractor fails to meet delivery schedules or product specifications.

19. Material Breach of Contract:

In the event Contractor fails to deliver the product and services as contracted for herein, to the satisfaction of the City of Sparks or otherwise fails to perform any provisions of this Contract, the City, after providing five (5) days written notice and Contractor's failure to cure such breach within the time specified in the notice, may without waiving any other remedy, make good the deficiencies and deduct the actual cost of providing alternative products and/or services from payment due the Contractor. Non-performance after the first notice of non-performance shall be considered a material breach of contract.

20. Force Majeure:

Neither party to the Contract shall be held responsible for delay or default caused by fire, riot, acts of God, and/or war which is beyond that party's reasonable control. City may terminate the Contract upon written notice after determining such delay or default will reasonably prevent successful performance of the Contract.

21. Termination:

The City may terminate the Contract for material breach of contract upon ten (10) days written notice and recover all damages, deducting any amount still due the Contractor from damages owed to the City, or seek other remedy including action against all bonds. The Contractor may terminate the Contract for material breach of contract upon thirty (30) days written notice to the City.



22. Assignment:

All of the terms, conditions and provisions of this Contract, and any amendments thereto, shall inure to the benefit of and be binding upon the parties hereto, and their respective successors and assigns. The Contractor shall not assign this Contract without the written consent of the City which will not be unreasonably withheld.

23. Entire Contract:

This Contract constitutes the entire agreement of the parties and shall supersede all prior offers, negotiations, agreements and contracts whether written or oral. Any modifications to the terms and conditions of this Contract must be in writing and signed by both parties.

24. Severability:

If any part of this Contract is found to be void it will not affect the validity of the remaining terms of this Contract which will remain in full force and effect.

25. Headings:

Paragraph titles or captions contained in this Contract are inserted only as a matter of convenience and for reference only, and in no way define, limit, extend, or describe the scope of this Contract or the intent of any provision herein.

26. Singular Includes the Plural; Gender; Title Reference:

Whenever the singular number is used in this Contract and when required by the context, the same shall include the plural, and the use of any gender, be it masculine, feminine or neuter, shall include all of the genders, and the word "person" or "entity" shall include corporation, firm, partnership, or any other combination or association.

The use of the title "Bidder", "Vendor", "Contractor" or "Consultant" within this contract or associated bid documents shall be deemed interchangeable and shall refer to the person or entity with whom the City of Sparks is contracting for the service or product referenced within this contract.

27. Execution:

The parties agree to execute such additional documents and to take such additional actions as are reasonably necessary or desirable to carry out the purposes hereof. They also agree, acknowledge and represent that all corporate authorizations have been obtained for the execution of this Contract and for the compliance with each and every term hereof. Each undersigned officer, representative or employee represents that he or she has the authority to execute this Contract on behalf of the party for whom he or she is signing.



THIS SPACE INTENTIONALLY LEFT BLANK



IN WITNESS WHEREOF, the City of Sparks has caused this Contract to be executed by its officers thereunto duly authorized and the Consultant has subscribed same, all on the day and year first above written.

(Vendor)

CITY OF SPARKS, NEVADA
A Municipal Corporation

By: _____

By: _____
Ed Lawson, Mayor

(Title)

APPROVED AS TO FORM

ATTEST:

City Attorney

City Clerk

CITY OF SPARKS, NEVADA - BOND OF FAITHFUL PERFORMANCE

Bid #: _____

Bond #: _____

Surety Rating: _____

NV License #: _____

Appt. Agent Countersigning - List below with address

KNOW ALL MEN BY THESE PRESENTS: That WHEREAS, the City of Sparks in the State of Nevada has awarded to **CONTRACTORNAME** hereinafter designated as the "Principal" a contract for Bid # **23/24-011**, PWP # **WA-2024-164**, for the **SANITARY SEWER CIPP LINING - FISCAL 2024** and

WHEREAS, said Principal is required under the terms of said contract to furnish a bond for the faithful and proper performance of the Contract and the Bonding Company has an "A" or better rating with Moody's or A.M. Best and T-Listed with the U.S. Treasury Department;

NOW, THEREFORE, we the Principal and _____ as Surety, are held and firmly bound unto the City of Sparks in the State of Nevada, in the penal sum of **WRITTENAMOUNT** dollars (\$AMOUNT), lawful money of the United States, being not less than one hundred percent (100%) of the estimated contract cost of the work, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the above bound Principal, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and faithfully perform the covenants, conditions and agreements in the said contract and any alterations made as therein provided on his or their part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the City of Sparks in the State of Nevada, its officers and agents as therein stipulated, then this obligation shall become null and void; otherwise, it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the said contract, the above obligation shall hold good for a period of one (1) year after the completion and acceptance of the said work, during which time, if the above bounden principal, his or its heirs, executors, administrators, successors or assigns shall fail to make full, complete and satisfactory repair and replacements or totally protect the said City of Sparks in the State of Nevada from loss or damage made evident during said period of one (1) year from the date of acceptance of said works, and resulting from or caused by defective materials or faulty workmanship in the prosecution of the work done, the obligation in the said sum of **WRITTENAMOUNT** dollars (\$AMOUNT), shall remain in full force and virtue; otherwise the above obligation shall be void.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in anyway effect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the contract, to the work or to the specifications.

IN WITNESS WHEREOF, the above bound parties have executed this instrument under their seals this ____ day of _____, 20__, the name and corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Principal

By _____

Surety

By _____

CITY OF SPARKS, NEVADA – Payment Bond – Labor & Materials

Bid #: _____

Bond #: _____

Surety Rating: _____

NV License #: _____

Appt. Agent Countersigning - List below with address

KNOW ALL MEN BY THESE PRESENTS: That WHEREAS, the City of Sparks in the State of Nevada, has awarded to **CONTRACTORNAME** hereinafter designated as the “Principal” a contract for Bid # **23/24-011**, PWP # **WA-2024-164**, for the **SANITARY SEWER CIPP LINING - FISCAL 2024** and

WHEREAS, said Principal is required under the terms of said contract to furnish a Bond for the faithful and proper performance of the Contract and the Bonding Company has an “A” or better rating with Moody’s or A.M. Best and T-Listed with the U.S. Treasury Department;

NOW, THEREFORE, we, the Principal, and _____ as Surety, are held and firmly bound unto the City of Sparks in the State of Nevada, in the penal sum of **WRITTENAMOUNT** dollars (**\$AMOUNT**), lawful money of the United States, being not less than one hundred percent (100%) of the estimated contract cost of the work for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally firmly by these presents.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH that if the above bounden principal, his or its heirs, executors, administrators, successors, or assigns, shall fail to pay for any materials, provisions, provender or other supplies, implements, or machinery used in, upon, for, or about the performance of the work contracted to be done or for any work or labor thereon of any kind, or for amounts due under the Unemployment Compensation Law with respect to such work or labor as required by the provisions of NRS 612, and provided that the claimant shall have complied with the provisions of said law, the Surety hereon will pay for the same within thirty (30) calendar days an amount not exceeding the sum specified in this bond, then the above obligation shall be null and void; otherwise to remain in full force and account. In case suit is brought upon this bond, the said Surety agrees to pay a reasonable attorney’s fees to be fixed by the Court.

The Bond shall insure to the benefit of any and all persons, companies and corporations entitled to file claims under NRS 339 as to give a right of action to them or their assigns in any suit brought upon this Bond.

IN WITNESS WHEREOF, the above bound parties have executed this instrument under their seals this ____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Principal

By _____

Surety

By _____